



# The Transmitter

Suburban RC Barnstormers - P.O. Box 524, Bloomingdale, IL 60108

AMA CHAPTER 640

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December 2012

<http://www.suburbanrcbarnstormers.com>

## **Coming in December and January**

December 10<sup>th</sup>, Christmas Meeting, Bloomingdale Public Library, 7:00pm \*\* CHRISTMAS RAFFLE! \*\*

December 14<sup>th</sup>, Dome Fun Fly, White Pines Golf Dome, 11:00pm

December 17<sup>th</sup>, Board Meeting, Bloomingdale Public Library, 7:00pm

January 1<sup>st</sup>, Frozen Fingers Fun-Fly, Pratt's Wayne Woods, Noon

January 14<sup>th</sup>, Club Meeting, Bloomingdale Public Library, 7:00pm

January 17<sup>th</sup>, Dome Fun Fly, White Pines Golf Dome, 11:00pm

January 28<sup>th</sup>, Board Meeting, Bloomingdale Public Library, 7:00pm

## **President's Corner**

*By Mike Maciejewski*

### **Merry Christmas to all!**

This is a time of being with your family and friends. I hope all is going well for you and the ones you love.

This month is our Christmas meeting so I hope to see you there. It should be fun for everyone that attends. There will be an officer's report then if everyone agrees we will skip to the fun.

I have invited Jessica Ortega from the Du Page Forest Preserve to the January meeting to give us details of what is going on with the new flying field. So it should

be interesting to hear what they have planned and when the move will be.

I would also like to thank all of you for participating in last month election. Whether it was running for office or voting, thank you.

There will be a "hat" passed around for the Wish Tree. This is a local charity that the club has been involved with for a few years. This helps out people who are having a hard time. I know that it may not be possible for everyone to do, some of us are having our own hard times.

## **Bloomingdale Wish Tree**

I know it is shocking but Christmas is right around the corner. Thus it is time for our club to do something for our community once again with the Bloomingdale Wish Tree. For the last 16 years we have done a donation to the Wish Tree to help buy toys and gifts for the needy right in our own back yards. The wish tree helps with children's toys but it also deals with seniors in nursing homes that do not have family and deserve to have someone care.

So once again at our Christmas meeting we will be doing a pass the hat donation. With our hobby it is very easy to spend a lot at our local hobby shop or online but what if we each took a bit of that money we would spend on

the hobby and help others think of the good we could do. This is our clubs way of doing so.

I have had the pleasure of seeing Santa come to give the gifts to the children at the township office and it has truly touched my heart and it has made me feel good knowing that our club was able to make a lot of kids and seniors smile. So as I said this year we will be doing a pass the hat collection at the Christmas meeting, if you are not going to be at the Christmas meeting and want to donate at the November (Thanksgiving Meeting) please feel free to see me.

Thanks  
Debbie Howe  
[Rcwife2@comcast.net](mailto:Rcwife2@comcast.net)

# Notes of the Suburban RC Barnstormers Membership Meeting

November 15, 2012

## ATTENDANCE

There were 41 members including new member Bob Vance.

## OFFICER REPORTS

**President: Mike Maciejewski** was absent.

**Vice President: Dave West** presided over the meeting in Mike's absence.

Door prizes were a bottle of CA, battery straps, and a hot glove. Mike Cannata had also brought in a 60-90 size motor mount and a 14 oz fuel tank for the taking. Thanks Mike!

Tom McAvoy had donated a Blade CX 2 complete with radio before he left for California. So, tonight the rollover prize will be the CX2. But we will roll until it goes!

**Treasurer: Bob Elsner** said that picked up 12 Jewel gift cards to be raffled as our Thanksgiving Turkeys. These are \$17 each and of course, can be used for more than Turkey!

**Secretary: Scott Taylor** passed out a few nametags for members.

## COMMITTEE REPORTS

**Dome Flying – Marty Schrader** discussed some potential limits for multi-blade helicopters. He suggested a limit of 500 watts total regardless of the number of blades. Single blade helicopters could exceed that.

Marty also discussed the idea of allowing pilots to fly without AMA membership. But for now, the Board has decided AMA membership will be required in part, to ensure pilots are insured.

Marty also thanked Stan Warden, John Kubitz, Tom Jacobs, and Bob Sarley for their help in the dome. But more help is still needed. If you think you can help one night each week, please let Marty know.

**Dome Fun Flies – Ron Hilger** said get ready for the first fun fly this Thursday. The fun fly event in the Dome was going to be a pylon race. Both on the ground and in the air. There would be 1-8 figures on the ground and 1-2 in the air. No food, just fun and fly FREE. Ron has lots of prizes including a Telemaster, AT-6, and 5 foamies to give away.

## OTHER BUSINESS

**Elections - Scott Taylor** opened the floor back up for nominations for Officers and the Board. In addition to the previously reported candidates, Bob Sarley's name was added to the Board nominees. Bob withdrew from the Fun Fly Chairman position.

A written ballot was used for the Vice-President, Fun Fly Chairman, and Board positions, where multiple

candidates existed. For the positions where only one candidate existed, a motion was made to accept the candidates. The motion was seconded and passed.

The final result was Mike Maciejewski for President, Steve Thill for Vice-President, Bob Elsner for Treasurer, Scott Taylor for Secretary, Steve Merrill for Fun Fly Chairman, John Howe for Flight Instruction Chairman, Tom Lyons for Safety Chairman, and for the new Board positions, Jeff Peca, Scott Stampfli, Ron Hilger, and Bob Sarley. Dave West will also assume a Board position as a result of his retirement from Vice-President.

**Charity Raffle – John Howe** said because of the increased difficulty in getting donations, the "raffle" would likely be "Pass the Hat" at the Christmas meeting. However, if members are able to make some donations, they may be able to put together a couple packages to buy tickets for.

All proceeds go to the Bloomingdale Wish Tree Foundation that helps grant the Christmas gift wishes for those less fortunate.

## ENTERTAINMENT

**Turkey Raffle – Scott Taylor and Dave West**

distributed the "Turkeys" (Jewel gift cards) to those that won through out the year. There were then two extra cards that were given away by drawing. Mike Cannata and Will Cowgill were the winners of these cards. Congratulations to all and thank you for attending our club meetings!

## PLANES and THINGS

**Ron Hilger** brought in a 30 year old SIG Kadet. It was powered by an even older Olsen .61 engine from 1941. Still ready to fly!

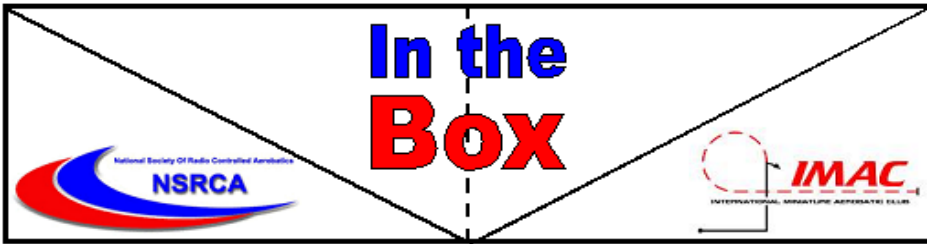
**Steve Merrill** showed the club his Cassutt Racer he built from plans that were in the December 2000 issue of Model Airplane News. It was a built up balsa model which he was powering with a 3-cell electric motor.

**Dave West** presented his "Pond Side" sea plane which was framed up and ready to cover. It has a 48 inch wingspan and will fly using a 3 or 4 cell pack. Dave finds the sea planes to be great flyers off of snow.

**Scott Taylor** showed the members the assembled F-20 Tigershark he won at the last meeting. It is powered by a 2200 ma 4-cell pack and can easily blow the leaves out of the back yard! It has not had its maiden flight yet.

## RAFFLES

**Jeff Mrachek** won the Velcro Strap, **Frances Crowe** won the Hot Glove, and **Dave West** took home the glue. Instead of the regular rollover the Blade CX2 was raffled and went home with **Steve Merrill**.



## Pattern Flying - Precision Aerobatics

Taking your passion for flying RC airplanes to the next level!

By: Bob Sarley

### Color Theory Applied to Model Aircraft (Developed from an article by Dr. Robert Suding)

All fliers of RC aircraft have gotten that "I can't tell which way it's going" feeling while learning to fly. Some of us "experienced" pilots still get that feeling today under certain conditions. Whether you are a novice or an aspiring top dog in pattern flying, some simple color trimming techniques can help you fly your plane better and possibly avoid a disaster. The criterion is very simple - if you can't see it well, you can't fly it well. In today's RC modeling world inundated with ARF and RTF models, most airplanes are covered or painted to look good on the box and in the store. Visibility in the air, however, can be an entirely different story.

**The eyes have it.** Flying an RC airplane is totally a visual thing. To successfully (and comfortably) fly an RC aircraft, the pilot must have both good orientation and distance perception. Your eyes estimate aircraft orientation based on the perceived position of the model's outer edges and the relationship of these outer edges to the edges of any discernible trim markings on the airplane's wings or fuselage ( I don't have those big contrasting colored squares on the bottom of my YAK's wing for nothing! ). Subsequently, distance perception depends on the combination of one's perception of the aircraft's outside edges, its estimated orientation and its relative size. When you are looking at your airplane in flight your eyes and brain must immediately recognize several attitude orientations:

- Is it flying toward me or away from me?
- Is it upright or inverted?
- Are the wings level, or tipped (or vertical in a vertical maneuver)?
- Is it flying level to the ground, climbing, or descending?
- Is it flying parallel to the established runway or vectored at some angle?
- In a vertical maneuver, is it flying perfectly vertical or skewed to either side or toward the wheels or cockpit?

The following suggestions are offered to help you with distance and attitude perception. As one who can speak from experience, both visual acuity and contrast perception diminish with age. But by using some basic color concepts, even we senior fliers will find that visual orientation of the aircraft can be consistently and reliably achieved.

**An argument for not being "solid".** We fly our RC airplanes in all kinds of weather and background conditions. A solid-colored aircraft may at times be flown in an environment where it blends into the background. This can result in a complete loss of location and orientation since no edges can be perceived. One example would be a silver Mustang in a heavily overcast sky. Yellow Cubs are also tough to see when back lit by the sun. I have a dark green P-40 war bird that tends to go stealth on me when flying with a row of trees in the background (like encountered at Springbrook Prairie flying field, for instance). Red Stiks and dark blue airplanes can go almost invisible in late evening or in overcast conditions. A solid-colored airplane is easier to cover, but it may become difficult to see or determine orientation up in the sky.

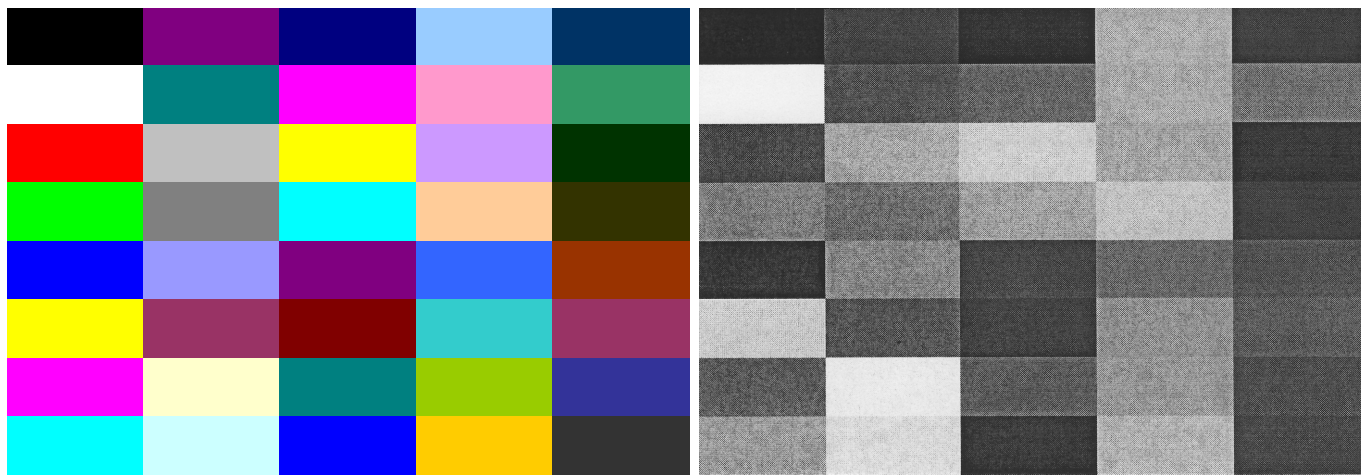
**A vision of color (and shades of gray).** The top of the wing and horizontal stabilizer is normally illuminated by the sunlight. The bottom of the wing and horizontal stabilizer is typically shadowed and will look darker. Coloring the top with lighter colors and the bottom with darker colors helps accentuate this light-top/dark-bottom relationship even in changing lighting conditions. The results; it's easier to see if the plane is upright or inverted, pitched up or down or rolled at an angle.

ARF manufacturers seem to invoke the most prevalent blunders in coloring. They either have identical top and bottom wing colors, or they put some token color on the top of the wings and leave them white underneath. They look good in the store, but do not help the beginner at all (or the senior pilot with aging eyesight). It is always better to have a darker color on the bottom of the wing and stab and a lighter, contrasting color on the top surfaces.

**Some eye catching facts.** Perception of color begins with specialized retinal cells containing pigments with different spectral sensitivities, known as cone cells. In humans, there are three types of cone cells sensitive to three different spectra (red, green and blue), resulting in our trichromatic color vision. Depending on the size of the model and lighting conditions, when your model is flying at a distance of 500 feet or more **you can't see colors**. This is because the cone cells of retina of your eyes that perceive color are 2,000 times less sensitive than the rod cells, which perceive illumination.

Due to this difference in sensitivity, when your model is far away from you, your gray-scale vision (the perception of shades of lightness and darkness in a black-and-white image) provides the input for your orientation and depth perception, not color. Any series of adjacent colors on your aircraft that are intended to facilitate orientation should therefore be gray-scale opposites. Don't assume a series of "color opposites" such as red with green or blue with black will be effective. These all have the same dark gray-scale shade and will show an equal tendency to disappear in a deep blue or heavily overcast sky. If you use the wrong background or trim colors, you won't know how far away your aircraft is, and you will not be able to determine which way it's heading to bring it back. Also, don't rely on intricate patterns. They blend together to form edgeless fuzz approximately 100+ feet away. Broad stripes or checker boards (big checker boards for me) would be more visible.

An example of color versus gray-scale perceptibility is illustrated in the pictures below. The colored squares in the block on the left are represented in corresponding gray-scale in the block on the right to illustrate what they would look like at a distance.



As you can see in the pictures above, the red and blue squares, although highly contrasted in color, look very similar in gray-scale. This is how the colors would be perceived at a significant distance from the observer. It looks like red and blue would make poor choices for top and bottom of wing, while yellow and blue would be more distinguishable at a distance.

**Landing Considerations.** Landing requires keeping your wings flat and knowing where you are in the landing approach. You are generally close to the airplane during the later stages of the landing approach, so your color perception is improved, but the wings will be edge-on to your line of sight. The leading edges should be very prominent against any background such as blue sky, white clouds, dark overcast, or green trees. All of these background items have spectral lines toward the higher frequency blue or green region, so a very simple solution would be to have a low frequency color such as red, orange or yellow on your wing and horizontal stabilizer leading edge. A good example of a well contrasted, highly visible combination would be a white or light yellow background on the top of the wing with a red or orange leading edge trim strip and a metallic blue background on the bottom of the wing. This combination also provides good contrast in the gray scale regions when the model is further away.

**Fuselage Coloring.** The same coloring criteria can be applied to the fuselage. A solid color fuselage is very difficult to keep straight and level because most of the aircraft reference lines are curved. One suggestion would be to draw a line along the thrust line of your aircraft, roughly splitting the top and bottom of the sides in half. Make the top half of your fuselage sides a light color and the bottom half a dark color. Orientation will be enhanced and easier to maintain by keeping the top of the fuselage light, and the bottom half dark.

**Sunglasses.** Gray, light blue, or light green tinted sunglasses are preferred because your vision becomes extended into the high frequency part of the visible spectrum, resulting in greater visual perception range! They also make the airplane in the air look just like the airplane in the pits. Because they only admit light in the low frequency part of the spectrum, red or yellow tinted lenses tend to reduce the overall color visual range and acuity.

#### **Some Final Thoughts.**

- For beginners, color schemes should be evaluated for visibility first, beauty second.
- Dark colored airplanes are more difficult to see in overcast skies and in the evening.
- Solid colored planes are difficult to orient at a distance.
- Scale airplanes are a special problem. Warbirds were colored to avoid detection. Because of their color schemes, flying scale-colored airplanes may require a higher level of skill and experience.

Until next time: get out there and fly!

## **The Transmitter**

This newsletter is published monthly by the Suburban RC Barnstormers, Inc.

We reserve the right to edit all information forwarded to us. Permission is hereby given to reprint any article that we publish as long as proper credit is given.

Material can be submitted for publication: (1) at a meeting, (2) by mailing to Suburban RC Barnstormers, Inc., P.O. Box 524, Bloomingdale, IL 60108, (3) sending it to the email of the editor, Scott Taylor, at [taylorstr@core.com](mailto:taylorstr@core.com)

Articles must be received by the 4<sup>th</sup> Saturday of the month to be included in the following month's newsletter.

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