KCRC
KNOX COUNTY RADIO CONTROL

April, 2006 --- Knoxville, Tennessee --- AMA Chapter 594
Newsletter..... .....jimscarbrough@charter.net
KCRC website.....www.kcrctn.com
KCRC Newsletter(PDF) available on KCRC website for downloading

The meeting for April will be on Tuesday, April 11th, 2006, at Deane Hills Rec Center at 7:00 PM.

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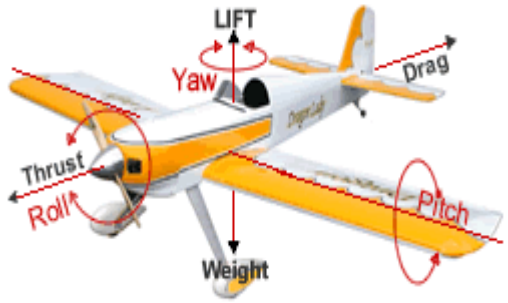
PROPWASH
By Phil Spelt

A miniature aircraft is a SYSTEM. That is the premise of the next few Propwash columns, in which we will explore the forces shown on this picture of a



Modeltech Dragon Lady and how they affect the flight of the model. These forces must be in proper relationship to each other for an airplane to fly.What do I mean by a system? System Theory has been around for a number of decades and has its roots in environmental biology. Consider: Hawaii had a rat and snake problem, so they introduced the mongoose to solve it. The mongoose, having no natural predators in Hawaii, became a problem in itself. In a system, if you tamper with one parameter or factor, it will have consequences in other areas of the ecosystem, or any other system. In a system, all parts are inter-related. If you substitute a more powerful engine in your plane, you may well add weight, and upset the CG balance.

Thrust is the powering force that moves the plane forward. It derives from the engine/propeller combination. Drag, the "opposite" of thrust, is a function of the frontal area of the plane, the contour of the airfoils, and the texture of the covering. Weight is the effect of gravity on the combination of materials in the plane. And lift is the force generated by the movement of air over the airfoils of the wings, fuselage and tail surfaces. When lift and weight are equal, and thrust is greater than drag, the airplane will move forward in a straight line, other things being equal.

In upcoming columns we will consider these forces and what you can do about them, whether you build or fly ARFs. We will also look at engine-propeller selection, and the effects of propeller selection on airplane performance. The more you know about airplanes, the better you can prepare your plane, and the better pilot you can become.

Meanwhile, this is The Wingman, turning final…

This is Arnaldo Caiado's Model of the Month winner for March. It is a scratch design electric stunt model powered by a PJS out runner and Lipo battery, It has Hitec servos and receiver. Very well done model.....

AT THE FIELD

SENIOR PATTERN ASSOCIATION EVENT

by Dennis Hunt, KCRC CD

KCRC club meetings have been poorly attended lately so I am resorting to the newsletter in seeking member support at the upcoming SPA Pattern Contest. Before I get to writing about the staffing requirements I think it is important to mention the benefits that a Pattern Contest brings to KCRC.. Most of you will remember that last year the SPA contest made a profit of $400 but in addition to that financial benefit it also provided all club members with an opportunity to compete in a very friendly and relaxed environment with a great bunch of flyers from all over the South East. Anyone who has flown in an SPA contest will attest to that fact. Another generally recognized fact of pattern competition is that it improves one's flying skills. If anyone would like to compete this year and would like to get some coaching, then it can be arranged. The Novice category is open to anyone and any AMA legal airplane can be flown. Just let Ed Hartley or me know. You can get the Novice maneuver sequence on line at http://www.seniorpattern.com. You do not have to join SPA in order to fly in the event.

Over the years KCRC has earned a very good reputation for well organised contests. The key to a successful contest is having sufficient staff help to keep things moving along. Last year the member support was excellent and I hope we can do the same this year. We need at least four people to man the registration desk on Saturday morning. Jim Scarbrough has headed up this chore for many years and is well experienced but he will need support to take the entry fees and get the competitors information prepared for Joel who will again be running the scoring system. He will need one person to help with that most important task on Saturday and on Sunday morning.

I propose to stay with the catering system we used last year and we will need one person to take the Saturday Lunch orders and to collect the food from Sims Deli. Harry Hogan did a great job last year. Last year we did not have anyone handling the cool drink sales throughout the contest and we lost money as a consequence. I would like someone to take charge of that concession. Mike Miller has agreed to handle the flight order desk but he will need a couple of helpers to keep the score sheets coming in. I would like to have all staffing positions filled before the next newsletter is published. Please note that the April newsletter will be the last one prior to the event. I would also like to be able to provide our Editor with a glowing report of a most successful contest for the June newsletter.

If you are able to assist at any time over the weekend of May 20/21 please give me a call (483-8373) or e-mail to zimpro@comcast.net

NEW ADDITIONS TO FIRST AID BOX

Well, there is a new addition of First aid equipment to the lock box at the field, the blue bag has mostly bandage type stuff in it right now and I will be adding some more items as they become available.

Anyone having the following problems should have 911 called right away. Give the location as posted at the box and in the main shelter. Stay on the phone or have someone stay on the phone with 911 and listen to their directions.

This is a partial list to give you an idea.
Chest pain
Cardiac arrest
Shortness of breath prolonged
Allergic reaction to a bug or snakebite
Diabetic problem
Stroke
Falls greater than 5 feet
Amputations or impaled objects
Sever laceration and gross bleeding

The CPR mask is a one-time use device and the 911 dispatcher will talk you thru the correct way of doing CPR and rescue breathing.

There are some large trauma type dressings in 8x10 and 5x9 size to be used for severe bleeding with direct pressure.
Three triangle bandages for sling and swath (remember those Boy Scout Days)
Rolls of Kling that hold the dressing in place, and assorted other smaller dressings
There is also a box of gloves and alcohol hand gel.
These items where donated by Rural/Metro Ambulance Service and I would like to say Thank You to Tim Suter Director of Operations.

The other thing is, don't forget that there are Fire Extinguishers in the box also, and please remember the number one rule for charging LIPO batteries; **NEVER leave unattended !!!!**

If anyone would like more information on usage, please contact me at Scott@rcfoamy.com

On Final.... Scott Anderson, Paramedic

MEETING MINUTES ,MARCH 2006

Meeting was called to order at 7:00 PM, March 14th, 2006, at Deane Hills Rec Center with 14 members present. KCRC President Phil Spelt presided.

Minutes from February meeting were approved as printed in the newsletter.

Treasurer's report was given by Pres Phil Spelt due to the absence of Treasurer Joel Hebert because of sickness. Report was accepted and approved as given.

Phil gave a report on Joel andsaid that he was getting better and hoped to return to the meetings soon.

Arnaldo Caiado paid his dues for 2006 to Phil Spelt and received his 2006 sticker.

OLD BUSINESS

No officers reports were made.

Phil Spelt said he had sent in the renewal papers on the club's state incorperation. Also said he had sent in the club sanction renewal to the AMA.

Phil has also sent the request for Gold Leader club status to the AMA. We were approved last year and should receive it for 2006. In regard to this, Phil went over the AMA Safety Code as distributed in recent newsletter..

Phil has also applied for AMA sanction for the Warbird Fly-in at the Tennessee Eagles field at Harriman which we are co-sponsoring. This event is scheduled for June 3, 2006.

Dennis Hunt, CD, has the sanction for the KCRC Ben Oliver Memorial SPA Pattern event scheduled for May 20th and 21st. Dennis is looking for volunteers to work this event.

Scott Anderson, CD, has the sanction for the KCRC AMA Pattern event to be held on August 5th and 6th, 2006. Scott also will be looking for volunteers to help out.

There has been no further action on the Float Fly. Event coordinator Jeff Procise was not in attendance and Phil Spelt has not yet gotten the Oak Ridge water location secured. It is hoped that a spring event can be scheduled on the back water used for the Rowing Regatta. More on this later.

Work Days are in the process of being scheduled for several projects needed at KCRC field. A paint detail is needed to paint the frequency pin box and along the soffet of the pit shelter. A member is being sought to oversee this paint project.

Another project is the electrification of the pit shelter. It was decided that there should be outlets on each roof support. Much to do on this project. Ed Hartley will look into code requirements for getting this job done correctly. Scott Anderson suggested using PC pipe as a conduit to protect the wire. Gary Lindner says there is a wire cable available and safe for burial. Phil will check on ditching equipment and people to work. Money has been approved at a previous meeting to pay for equipment and supplies for this project.

There are no scheduled work days at this time, but members will be called upon to work as things are organized and supplies acquired and the weather continues to improve.

Mike Miller asked if any thing had been done about the damaged gate at the north end of the flying site where the marines had set up their Mud Run last year. Somebody had forced the gate and brought in off road vehicles. There was a fair amount of damage to the hay crop that we use to pay for keeping the field mowed and in good condition. Ed Hartley said he had talked to smeone in an area of command about the problem and about the need for advance notice so the hay could be harvested before their event this year. It was suggested that the fence line be posted because some people might consider that we are a part of the county park. Members have said that there are people wandering through the downed gate and coming across the field to the runway. Flying activity has to stop untill the field is clear. Phil is going to connect with the Park director about gate repair. Ed Hartley suggested that cut brush be put into areas where access to the field is possible in order to keep trespassers out. It is amazing how much effort some people will go to in order to vandalize.

NEW BUSINESS

Dennis Hunt suggested that email and the newsletter be used to make announcements and promote volunteers for club activities such as the upcoming SPA contest.

Scott Anderson gave a report on a recent indoor electric contest he attended with some of his electric models. He said there were several of the top contest flyers in attendance and that the equipment used was state of the art.

Scott also brought several items to be added to the safety box to the field. Items to add to the first aid box and other safety items.

Ed Hartley is making a sign for the fire extinguisher location.

Phil gave an announcement on the Cane Ridge Park location in Nashville where a Pylon Race competition it to be held on April 1st. There will be four classes of low pressure events with an emphasis on fun.

Someone mentioned that he had been approached by a person interested in flying control line. He was told that we have a couple of members who fly control line.

MODEL OF THE MONTH

There was only one entry in the contest this month. Arnaldo Caiado entered his very nice scratch designed and built electric stunt model. A lot of carbon fiber was used in the construction. Powered by a PJS outrunner and a Lipo 2 cell battery and Hitec receiver and HS-55 servos.

Arnaldo won the gallon of fuel.

CRASH OF THE MONTH

Phil Spelt told of his Daddy Rabbit crash due to pilot error but declined to enter the contest.

Meeting adjourned 7:45.

Minutes taken by Jim Scarbrough, Secretary....

This'n That

From the Middle Point RC Flyers, Murfreesboro TN

Windy Weather Flying

by Clay Ramskill

All too often, on an otherwise nice but windy day, folks just don't fly. Obviously, for a beginner, that's common sense—but for someone who has some experience, the wind can be a challenge that adds some spice to flying.

While it's easy to see that experience level has a lot to do with how much wind is too much, it may not be quite as apparent that the type of model you're flying also can have a great effect on your ability to handle winds. Let's go through some airplane design features to see which ones give us the best flying characteristics to handle winds and the resulting turbulence.

Size: In general, the larger the airplane, the better it will handle winds of all kinds; large models don't "flop around" as much!

Dihedral: The more dihedral in a model's wings, the more they are going to be affected by crosswind gusts; it is hard to keep the wings level, therefore lineup to the runway is difficult in a crosswind situation.

Wing Loading: The higher the wing loading, the less an airplane will be affected when hit with a gust.

Aspect Ratio: Lower aspect ratio (stubby) wings will be less bothered by gusts; there is less leverage for side forces to upset the airplane, and lower aspect ratio wings have a greater tolerance to changes in angle of attack caused by gusts.

Power: Having the power to overcome the force of wind is necessary. The same thing goes when you get into a sticky situation.

Lateral Control: Ailerons are beneficial in a crosswind landing and takeoff phases. The ability to dip a wing into a crosswind without changing heading is essential, as is the ability to rudder the airplane parallel to the runway heading while keeping wings level with aileron while landing.

Landing Gear: Models with tricycle landing gear are easier to land and take off in a crosswind than tail draggers; in addition, the wider the spread on the main gear, the better.

Maneuverability: This one is a bit harder to quantify. You want a model with stability, yet you do need good maneuverability to cope with gusts. Therefore, you want a model that is stable, yet responsive.

Wing Mounting: Generally, a low-wing airplane will handle crosswinds better. This is because the center of gravity of the airplane is nearer, in a vertical sense, to the aerodynamic center of the wing. Therefore, a side gust does not roll the model as easily. Moreover, by mounting the main landing gear on that low-wing model, they can be spread wider.

It's unfortunate that almost every item above is in direct opposition to the characteristics found in many popular trainers. The main exception is the requirement for tricycle landing gear. But even with trainers, there are differences. Compare a Seniorita with the Kadet Mk2. While the Seniorita may be a bit slower and a bit easier to fly, the Kadet, with its ailerons, higher wing loading, lower aspect ratio, and lower dihedral, is a far better airplane when flying in windy conditions. Going a step further with the same kit manufacturer, the Cougar (.40)/Cobra (.60 size) kits embody all the right characteristics for windy flying.

In closing, I offer Confucius' only known saying about RC flying: "To learn to fly in wind, one must fly in wind!".....

I thought you might find the above article informative.

I can recall back when I first started flying RC with Galloping Ghost equipment, we would sit by our models and watch the leaves on the trees to see if there was too much wind to fly. If the leaves moved, we would mostly just sit and shoot the breeze about modeling. That really wasn't a bad idea because most of us had broken a model or two because the wind sometimes caused our planes to cut a dido that we didn't tell it to. When that happened, we would generally panic and cause the crash ourself because we (at least me) were flying in a state of panic anyhow. I don't know how many models I crashed bending the stick in the same direction the model was spinning.

Galloping Ghost was a term used to describe a system that used one channel and pulsed the signal to control two flying control surfaces. Essentially, it was free flight that might go in the direction you were hoping it would most of the time. Actually, for what was available at the time, it was a very efficient method of control and if the plane you were flying was a reasonable flyer you could do very well. The radio that I had was made and sold by Min-X. It came with a superheterodyne receiver and an actuator made by Rand that simplified hookup so that you could control rudder, elevator, and throttle. There was a lot of activity on the backend of the model during flight caused by the constant whapping back and forth of the rudder and the elevator, but you didn't see that when the model was flying. The TriSquire, Esquire, and other popular trainers were very forgiving trainers and by the time proportional radios (with a separate servo for each channel) got to Lenoir City, we were pretty confident with our flying.

It was shortly after purchasing a four channel fully proportional World Engines MAN 2-3-4 radio kit that I discovered East Tennessee Radio Control Society. This was early in the sixties, and we flew in Clinton. We became KCRC in 1973 when we moved to our present location.....Jim