



Jan - Feb - Mar
Editor:

2005
Jim Devlin

Election Results for 2005

Once again the annual election went with uncanny smoothness. This is frightening. The politics of our club is beginning to sound, well..., like a solidly broken in 40 engine. Can this phenomenon go on?

Whatever the reason, we now have all of our officers and board members for 2005 in place.

Several officers chose to remain in their positions for another year.

The fact that there was no challenge, speaks well of their performance during their previous tenure. In addition some simply traded hats.

During the year, we saw some excellent progress in the club.

After enduring the traumatic season of '03 that saw a rained out rally coupled with a large dues increase, we have to be quite thankful for the successes of 2004.

Our reserves are back up to snuff, our future field account restored and we have enough working capitol to stride ahead into 2005.

President Ron Wojcik and George Fox were re-elected to the offices of president and treasurer respectively.

Dave Kobie jumped in to fill the

shoes of retiring Stu Brierly as club secretary.

During a discussion in Sept. Mark Chamberlain expressed an interest in the office of V.P.

An interest was also put forth by Gale Scaglione who has been so helpful with all of our club activities.

Due to a required by-law change regarding length of membership, Gale yielded the nomination for this year.

With her club experience and tremendous energy, she will be a potent candidate in the future.

The board remained pretty much the same, with Orv Chatwood replacing John Newman.

We are fortunate to have such dedicated individuals who are willing to contribute their time and energy to make all of our projects as successful as they have been.

Some 35 members attended the meeting, showing solid club interest.

Congratulations to all.



After the club did so well at this years rally, our concerns turned to the annual auction.

This year we tried to send out cards to the pilots on our rally pilot list.

Actually, not many on that list responded and it may not be economical to send out the cards separately.

Most of those who attended seemed to come from our local clubs.

In any case, the auction was quite

successful and that's due to the dedication of the knights who worked very hard to make it so.

The guys showed up early in the morning and arranged the chairs and the tables to hold the many items that were entered for the auction.

Many good bargains were presented. Several tables were loaded with good stuff and our customers took their time browsing.

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2005 Registration is Currently Due

Membership dues **must be received before Jan. 14, 2005** or you will be dropped from the roster. Delay to Feb. 5 by request only (Call 648-0667).

Please use the form below to renew your membership by mail.

Remember, flying privileges at the Nike Site and the North Collins fields

are restricted to club membership!

Return the form along with your payment and a copy of your 2005 A.M.A. card to: **George Fox, 42 Dudley St., Hamburg, 14075.**

You must present a current A.M.A. card or a copy of same.

2005 Dues Renewal Form	
Please print: Name: _____ A.M.A. # _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email (If you have one): _____	
Chinese Auction "One man's junk is another man's treasure." Don't miss this spectacular event! Following the Feb. 4th meeting.	Mall Show Fri - Sat - sun March 4, 5 & 6 th. McKinley Mall Set-up thurs. nite Mar. 3rd -- 9 p.m.

This Hound Don't Hunt

Some flak overheard at the field this summer had to do with an inexpensive but popular engine, the MDS-40, owned by several club members.

On some engines the main bearings on the crank shaft have a slight mis-alignment that gets worse as the engine is used.

Resetting the bearings solves it.

This is an involved procedure, so unless you are having a problem with your engine, **think twice!**

1. Strip the engine completely and heat it in the oven to 300 degrees then tap out the bearings.

2. While the rear bearing is still hot seat it on the cool crankshaft and ensure it seats all the way at the back.

3. Reheat the case and install the crank and bearing assembly,

then the front bearing.

4. Install the prop thrust collar, a plastic propeller and tighten down good and tight.

5. Lightly tap the front of the crankshaft with a plastic mallet and using a drift pin do the same from the rear end of the crankshaft.

6. The shaft should turn very freely now. Allow to cool thoroughly and then reassemble the engine.

Persons unsure about stripping an engine should consult an expert.

Hopefully this tip will help local modelers avoid unneeded frustration fooling with plugs, fuels and maybe even losing an airplane.

This problem was uncovered by Jim Wolfe and submitted by Steve Johnson of the Aircrafters.

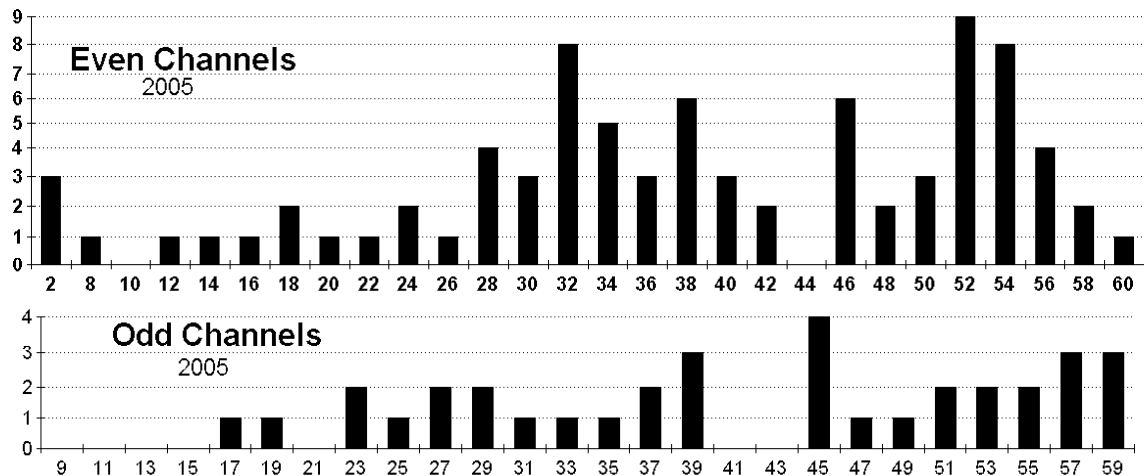
The 2005 Flying Knights Channel Update

Each year the club tries to have a survey of the current transmitters, so that members know how many are already on the same channel before they make a new purchase.

Everyone would like to avoid the situation of ending up at the field with someone else on the same frequency.

Even though some radios remain the same, others are added or retired. We attempt to show the current status

The results shown below are based on a response of 77% of the members.



Our new 2005 Raffle Plane



Shown at left is the new P-51 Mustang, constructed by Jim Pravel. It will be displayed at the mall show. Help us sell tickets. This beautiful warbird will be raffled at the close of our Rally in August.

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The auction got under way at noon and Tom Filipiak kept things moving with his usual flair.

Throughout the day our stalwart kitchen crew kept the pizza and coffee going.

About midway through the afternoon, Tom took a much needed break and we were treated to the auctioneering skills of Bill Hauth, a former member of our club and a long time flier.

Late in the afternoon, all of the items had been cleared and everybody went home to ponder the deals that they made.

The knights cleaned up the hall, feeling



Kitchen crew delivers the goods

well satisfied that this year's auction was a huge success.

Invisible Forces

Few things are more mysterious than the invisible force that holds an airplane in the air.

Most people, in spite of the fact that they will get into an airplane and fly to distant cities, actually have no clue about what holds the airplane up.

Most people think of it rather like a car.

You get in, start the engine, and simply drive to where you're going.

Pistons and carburetors never cross their mind.

They look at a plane that weighs several tons and can't even imagine how it stays in the air.

The same problem arises with a steel boat that weighs 50,000 tons. Why doesn't it sink?

Mystery has always been a characteristic of forces. Forces cannot be seen or heard.

We do sense some forces however. You can feel the force when you accelerate your car.

But even that force eluded folks for many centuries, at least until Galileo came up with a formula to calculate it and a few clever demos using a famous tower to show it.

Other forces, remained beyond understanding for much longer.

Most often, we see the effects of the force and not the force itself.

Like the wind in the trees, we are only aware of it when the leaves rustle or the limbs bend as shown in fig. 1.

Ancient mysteries

Take Gravity, for instance.

For a few thousand years the ancients pondered the problem of why an apple would always fall to the earth.

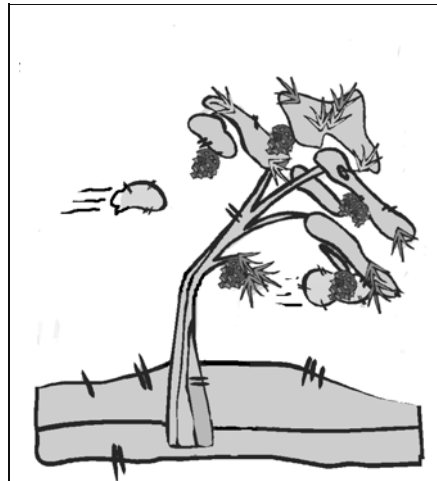
They felt it was a natural motion and let it go at that.

The motion of the sun, the moon and the planets was easily explained by angels.

These esoteric creatures simply guided the heavenly bodies in their proscribed paths.

The Greeks, less disposed to angels than most, simply declared that the circle was the perfect and preferred path.

The heavenly orbs were just doing their thing.



Galileo came up with the idea that it was a force pulling everything down.

Isaac Newton however, realized that it was the exact same force that pulled apple down and also held the moon in orbit.

Yet, even today, no one knows just why bits of matter possess this unseen force.

Modern mysteries

Magnetism was another of those invisible forces that bewildered the ancients, and even most of us.

Like a ghost, it would appear and disappear.

Today, it is the source of power for nearly everything in our modern world from the blender in the kitchen to the light in the street.

And it is still just as mysterious and just as invisible.

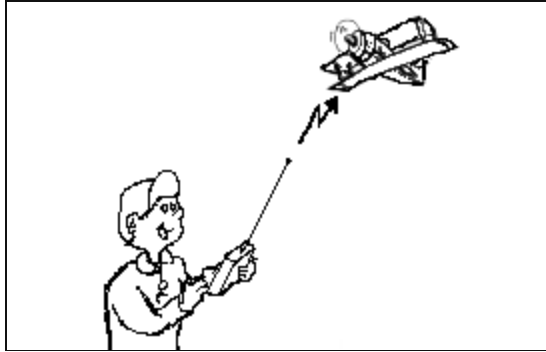
Another unseen phenomenon much closer to the RC modeler is the radio wave, fig.2, that carries the information from the transmitter in our hand to the receiver in the model plane.

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We move the stick and the rudder moves.

We can see the cause and effect between the hand and the antenna and we can see the connection between the antenna on the plane and the control surface that we are moving.

But, try as we might, we cannot see the mysterious, invisible energy that carries our command to the rudder. No one ever has.



Monday morning quarterbacking allows us to chide the folks who were actually there when these unseen things were first being discovered, (much like politics today), but at the time no one really knew what was going on.

Well, back to our airplanes.

The Lift Force

That force that keeps our planes in the air, from our penny gliders to million pounders like the C-5 transport is one of those invisible forces that confounded the ancients.

It too comes and goes. No matter how minutely you inspect the airplane on the runway, you will not see any force that could hold it in the air.

This force is more than invisible, it doesn't even exist while the plane is motionless.

Folks of old used to think that birds stayed in the air because of some mysterious property of their feathers, and some early experimenters actually put feathers on the wings of their planes.

The guys who jumped off towers or cliffs had exquisite feathers (some feathers were better than others) glued to their wobbly wings.

Remember the myth of Icarus?

His son flew too close to the sun and melted the wax (they didn't have epoxy in those days), that held the feathers to his wings, causing him to fall into the sea.

Eventually, it was discovered by the early pioneers, that the secret was not in the feathers.

It was not even a property of the air.

The Secret of Flight

This mysterious force arose simply because of the motion of the air.

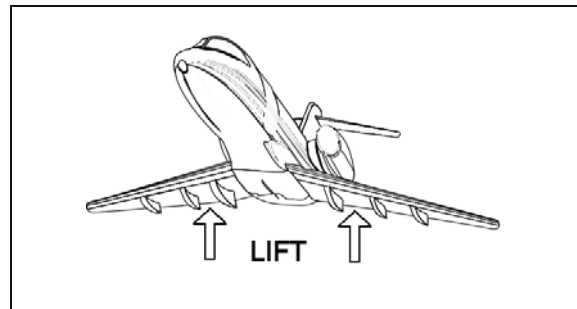
When the air moved, lift was generated.

No motion, no lift.

It doesn't matter whether the air moves over an object or the object moves through the air.

As the plane begins to move, as shown in fig.3, the force comes into being, slowly increasing until the entire weight of the plane is lifted.

The force seems to appear out of nowhere.



If you were to hold your hand flat outside the window of your moving car, you would see the factors of lift at work.

You can feel the lift being generated by gently increasing the angle your hand makes with your forward direction.

The faster the car moves the greater the lift for a given angle.

At about 25 degrees, sure enough, the lift stops abruptly, and your hand blows back like a sign board in the wind.

When the car stops, the mysterious force disappears. It no longer exists!

Over the years, beginning with the Wrights at Kitty Hawk, people began to put numbers on this elusive force.

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It was found that it depended upon the area of the wing.

The bigger the area in square feet, the more lift that was produced.

It also depended upon the density of the air. This property varied with the temperature and the altitude.

At low temperatures, air was thicker and thus produced more lift. At sea level (in the units we are familiar with), it is equal to the number .0024.

As one increased altitude the air got thinner and lift was less. Eventually you run out of lift. These factors are shown in Fig.4.

Most importantly, however, lift depends on the motion of the wing. The faster the wing moves through the air the greater the lift it generates.

In fact, lift is generated as the "square" of the speed.

If the speed doubles, lift is 4 times as great. If it increases by 3, lift is 9 times greater! This very important factor is measured in "feet per second".

Finally, it was found that it depended upon the angle that the wing made with its forward motion. It is approximately equal to a tenth of the angle in degrees that the wing makes with the airstream.

The greater the angle the greater the lift. But only to a point! At about 25 degrees, the lift suddenly disappears.

This was discovered with some dismay, and resulted in a few fatalities in the early days of flight.

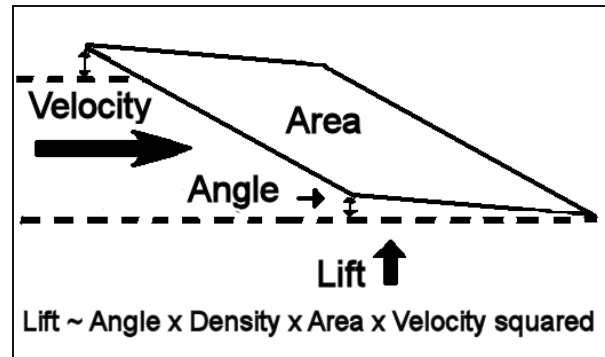
We too have seen it (the dreaded stall), in a few of the piles of balsa that now and then litter the flying field.

It took a long time for the folks of long ago, to sort all this out, bit by bit, one small fact at a time, often with years between insights.

Doing the Numbers

Today, as with gravity or magnetism we can jot it all down on one line.

A simple equation, relates the visible parts of the phenomenon and lets us calculate the effect with ease.



So if you are ever in doubt about the amount of weight that the airplane you are going to take to New York or the model that you are going to fly at the field can lift, just solve the following expression and you will be able to fly with confidence.

$$Lift \text{ (lbs)} = .1 \times Angle \text{ (Deg.)} \times .0024 \times wing \text{ area (sq.ft)} \times the \text{ speed squared (ft/sec).}$$

(up to about 20 degrees)

Christmas party

Our annual Christmas festivity followed a short "selection & election" meeting.

Plenty of pizza and loads of desserts made for a truly enjoyable evening.

Members are often unable to get to all of the weekly meetings due to work schedules etc., but our annual party provides an opportunity for everyone to meet and socialize.

The radio was won by Bill Scaglione.

