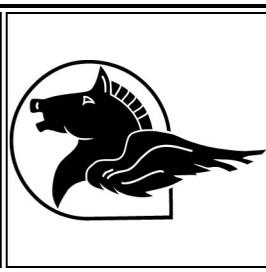


THE KNIGHT FLYER



Jan - Feb - Mar
Editor:

2004
Jim Devlin

Election Results for 2004

Many members can recall the year in which the pizza was held hostage until the "vote" was complete. In spite, of the specter of a pizza stand-off, the attendance was quite good this year.

All of the officers decided to remain in office, which greased the meeting.

For the first time in our collective memory, the elections finished early.

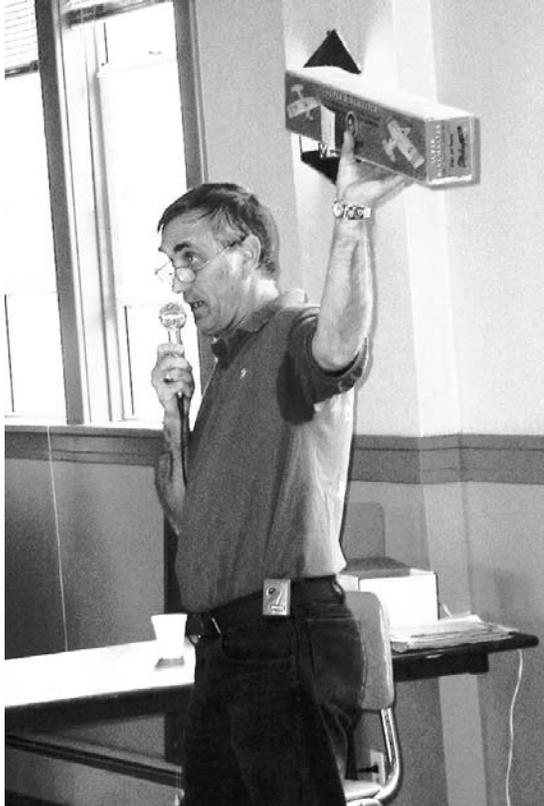
In fact, so early, that they were complete and the meeting closed before the pizza arrived !

Since there was no serious challenge to any positions, a single vote was enacted to re-elect them all.

A great round of applause was given the present slate of officers and board members for the fantastic job that they did over the past year.

They are all certainly to be commended for they the way they steered the club through some very difficult times.

I'm sure everyone joins in wishing them great success in the coming year.



Auction Rings Bell

As the flying season comes to a close the guys of summer begin to dream of new and better planes for the next year.

Naturally the question is, what to do with the steeds of today.

What better way to dispose of the old planes and at the same time pick up a few shekels to put toward that shiny new one.

Our venue this year continued to be the hall at the First Presbyterian Church in west Seneca. A fair crowd showed up but appeared to be keeping their wallets tightened.

Our erstwhile auctioneer, Tom Filipiak, worked very hard to extract bids but as the day wore on the pace picked up

Who'll give me 5

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Christmas party of '03

The annual Christmas Party turned out to be a very pleasant affair this year.

It was a great crowd, about twice the average attendance.

The elections went off with nary a hitch and the meeting ended ahead of schedule, (not that 25 minutes was a record.)

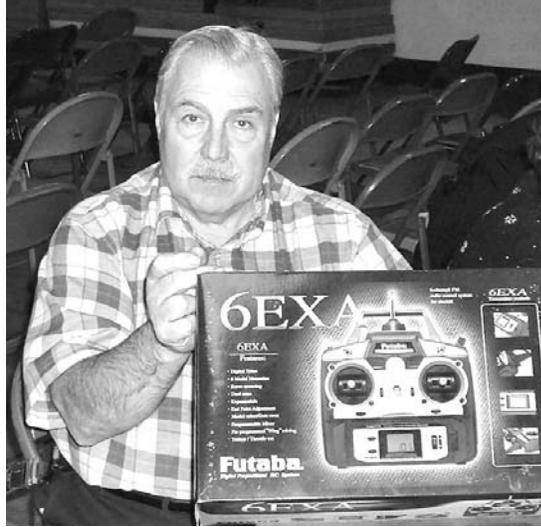
Schedule has always been defined, sort of like, "when the pizza arrives".

Dave Kobie won the 'roll over' raffle and George Fox took the 50/50. To provide an aura of suspense, the radio would be raffled later on in the evening.

There was time for chatting as everyone waited for the pizza to arrive, so members renewed some old friendships and reviewed the year just passed.

We did not have to wait long. Soon the aroma of fresh pizza wafted into the room, as one after another, the boxes of pizza swooped in and landed on the runway prepared for them.

Folks cued up and before



long all were seated busily enjoying the pizza, pop and the excellent round of desserts that the members brought in to share.

Finally, the radio raffle was drawn and John Neuman came up the lucky winner. The last meeting of 2003 was a quiet ending to a somewhat turbulent year.

New Nike Field Rules

Last summer two incidents occurred, where a model came down behind the flight line. Both were fliers who were not members of the area clubs.

Because of these incidents, new field rules are being implemented at the Nike site.

Due to the crowded activities surrounding the flying field, in the interest of safety, the town at the recommendation of the clubs will implement a new rule.

The field will only be used by **current members of the two**

area clubs, and their guests.

Everyone would like to avoid the self-policing situation because of the confrontations that often ensue.

Tom Warda and Rick Bishop of the RC Crafters will have a meeting in January to review these new rules.

A number of ideas have been put forward to help in implementing them.

We will keep everyone on board as to any future developments.

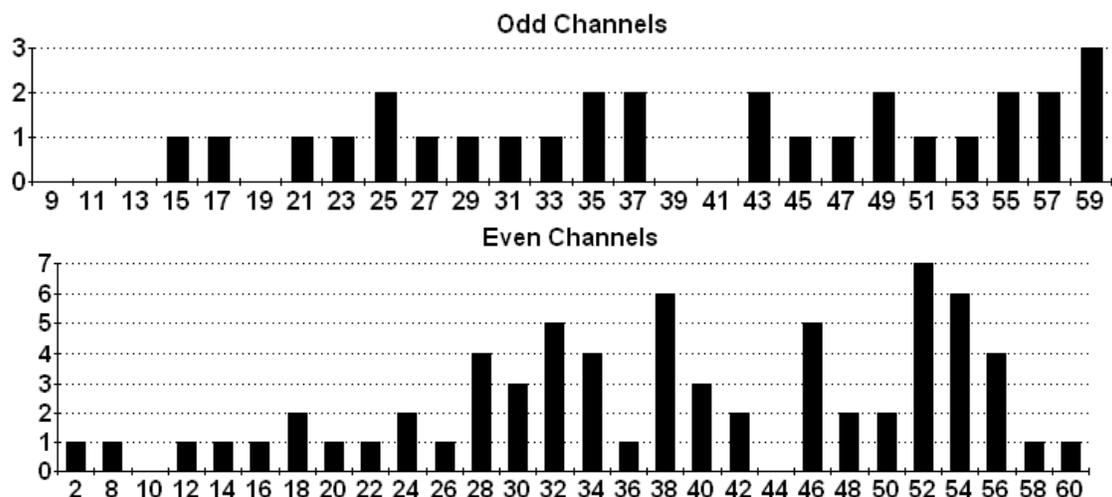
The 2004 Flying Knights Channel Update

Each year the club tries to have a survey of the current transmitters, so that when members purchase new radios they will have an idea of the number that are already on the same channel.

In this way we can minimize the number of conflicts that occur at the field. We are all familiar with the situation of waiting or taking turns, especially in our area of finicky weather and short season.

There is no guarantee that fliers won't show up at the field on the same channel. There are equally as many transmitters in use with the RC Crafters who share the Nike field.

The results shown below are based on a response of 71.2% of the members. Note that the odd channel maximum is 3 while the even channel max is 7.



Dates to Remember

We will begin the summer season of outdoor meetings with the meeting of May 21st.

Our Scale Rally will take place on Aug. 6th and 7th. and the auction will be on Saturday, Sept. 27th.

This year the summer fun flies will be on June 6th, July 11th, August 22nd and Sept 12.

Continued from page 1 (Auction)

Many fine articles appeared this year and there were quite a few bargains for the sharp eyed buyer.

This year's auction did fairly well. Credit is due to the many Knight's who worked hard to make it a success.

Feedback

Many members have stories about aviation that would be of interest to the rest of the club.

Senior members have lots of hints and kinks about modeling, ideas that would make things easier for old and new members alike.

Don't keep this good stuff to yourself.

Tell us about your favorite model or your best flight.

We'll be glad to accept and print your articles.

Member's comments and concerns are always welcome.

Bicycles and Birds

How two bicycle guys discovered the age-old secret of flight.

For eons man yearned to fly. Watching the graceful soaring of birds he envied their mastery of the air.

All during the 19th century, various individuals attempted the feat. For centuries before that, they watched birds wheel about in the sky with grace and ease.

Most of these early attempts met with disaster. Several claimed the life of the experimenter.

What was the problem?

What did the birds know that man was unable to figure out.

Oh sure, men knew something about the power that was needed. They knew that no really light source of power was readily available.

They also knew a little about what size of wings were needed to properly support the weight of a man and his contraption.

Numerous attempts were made with gliders by such notables as Octave Chanute, Clement Ader, Otto Lilienthal, Hiram Maxim and of course their closest rival, Samuel P. Langley. Some were able to glide for hundreds

of feet. But no one could maintain flight. No one could keep their craft aloft.

They knew about the pitch of the aircraft, and they had experienced the aerodynamic stall, when lift was lost.

Many intrepid inventors were also aware of the yaw, or turning force which was needed to send the craft to the right or the left.

Most thought of the airplane as an airborne car that needed only to be turned to the right or left.

They pictured themselves much like chauffeurs.

But was there more to the story? Was there something else, that confounded their efforts.

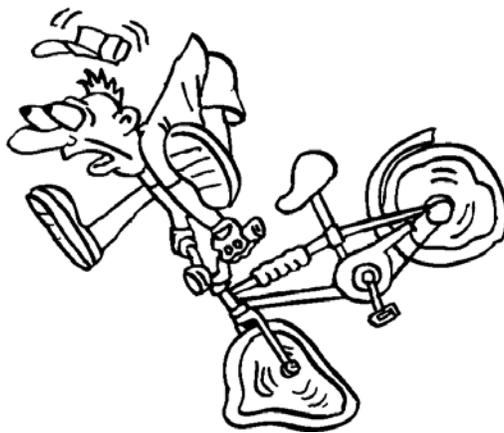
What they overlooked was the fact that the motor car was perfectly stable, sitting on four wheels.

The Wrights however knew otherwise. One can imagine their years of experience with the object of their business, the humble bicycle. How many times they must have watched a young child try to ride for the first time.

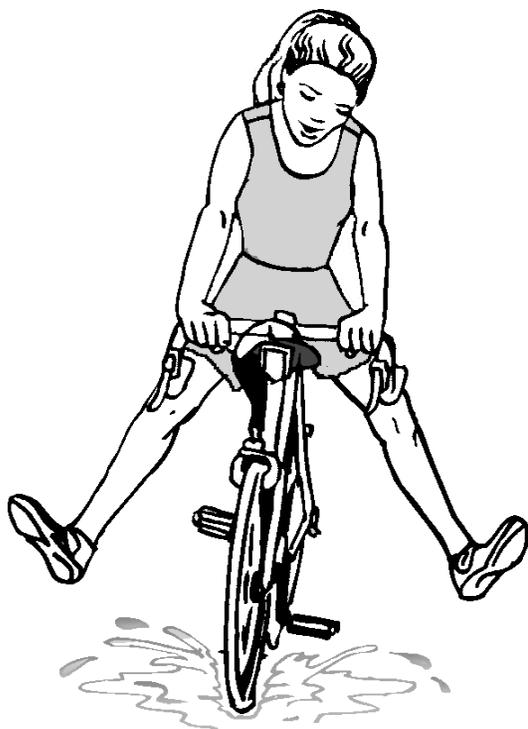
Shakily, the youngster would wobble back and forth under the steering hand of an adult. Then when the hand was removed he or she would careen forward until they slowly rolled over sideways, ending up in a crumpled heap.

One could be sure that they knew this first hand, and had often experienced the problem of balance and the tendency for a bicycle to roll over sideways like the guy in Fig. 1

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We have all experienced that first frightening ride when mom or dad launched us on our own bicycle for the first time. But, as fig. 2 shows, every child soon learns the trick of balancing their bike. One wonders when the magic moment occurred, when the Wrights suddenly realized that the problem of the airplane and the bicycle were the same. It was at that moment, that the secret of flight was revealed. Others had already calculated the amount of lift or the amount of thrust that was needed.



But it would be ten more years before anyone was able to fully understand this simple principle let alone duplicate it in a successful airplane.

The Wrights knew the problem and they knew the solution, but it was not easy to work out the means to accomplish it. This is where the inventive genius of the wrights really showed itself. Flying gliders at Kitty Hawk, the wrights experimented with ways to control the side to side movement of their glider.

Kitty Hawk provided strong steady winds that produced the lift the large gliders needed.

This simplified the problem for the wrights.

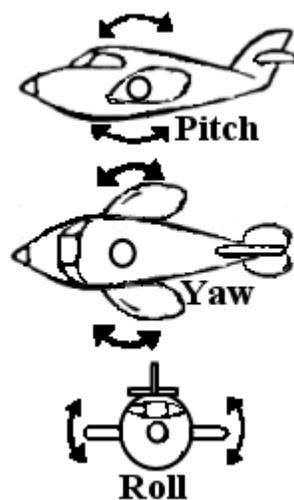
As shown in Fig. 3, there are three axis about which an aircraft pivots. The vertical axis runs from top to bottom and is referred to as the yaw axis.

The airplane rotates around this axis from side to side. The pitch axis runs along the wing from one side of the plane to the other side. The nose of the plane rotates around it.

The strong winds at Kitty Hawk allowed the wrights to ignore both of these motions.

The roll axis runs along the fuselage from the front to the back and the aircraft rolls around it.

With the strong headwinds at Kitty Hawk, the huge kites were perfectly stable in both pitch and yaw. The roll axis was conveniently isolated.



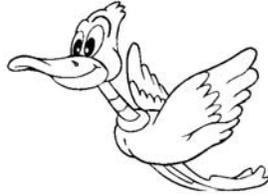
The wind had no effect on it and the Wrights studied it extensively, experimenting with a variety of ways to prevent their kites from rolling.

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Wilbur had long studied birds as they whirled and wheeled about in graceful circles. Fig. 4.

He had not failed to notice, how, when they started to fall to one side, they quickly twisted their wings to correct the fall and regain level flight.



Throughout the winter of 1901, they tried to think of ways to make their glider behave the same way.

Speaking before the Western Society of Engineers in Chicago in Sept. 1901, Wilbur said, "the greatest obstacle to a functional airplane is the balancing and steering of the machine after it is actually in flight."

Wilbur credited Lilienthal with being "the first man who really comprehended that balancing was the first instead of the last of the great problems in connection with human flight.

The bird has learned this art of equilibrium, and learned it so thoroughly that its skill is not apparent to our sight. We only learn to appreciate it when we try to imitate it."

By gently warping the wing, much like the birds, they reasoned that they could force the glider to right itself and remain straight and true in the offshore winds. Like the bicycle in Fig.5, they corrected the tendency to roll in order to remain upright.

During the summer of 1902 they tried their new wing and were totally satisfied with the way that it worked.

Having understood the importance of balance and having actually tested their concept on the sandy shores of Kitty Hawk, the brothers felt they were ready to put it all together.

They returned to Dayton where their mechanic, Charlie Taylor started to build a motor.

Over the winter they built an airplane that contained all of the features they had so diligently researched.

But most important, it incorporated the feature of roll control.



Langley, launching his complicated aerodrome from a houseboat in the Potomac that same autumn of 1903, never had a clue.

This one feature alone was the missing key, the age old secret of the birds, a feature shared by the humble bicycle.

Everyone had experienced the basic bicycle problem of balancing, but only the Wrights made the leap to aircraft.

Looking back from our perspective, it seems only right that it should have been revealed to two bicycle guys.

March Mall Show
McKinley Mall March 5th, 6th and 7th
Setup March 4th at 9:00 pm