



February 2004

The Fox Valley Aero Flypaper



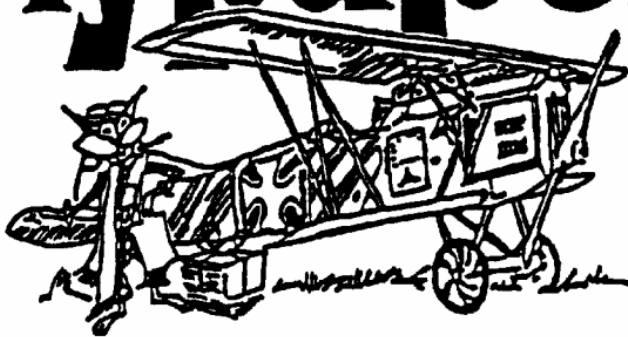
February 2004

Club President
Mel Ziska

Club Secretary
Kevin Hersey
(630) 513-7987

Club Vice President
Greg Bohler

Club Treasurer
Bill Simmons



Newsletter Editor **Bob Mosinski**



AMA Charter 252



AMA Charter 252

Message from the President

Not available at time of posting.



Thirty-five seconds ago, I valued your advice.

January 04' Club Meeting Minutes

by Kevin Hersey

Fox Valley Aero Club General Business Meeting Minutes January 8, 2004

President Mel Ziska called the meeting to order at 7:38 P.M. at the St. Charles Township facility

Secretary's Report – Highlights of the December meeting minutes were presented to the membership. The Secretary's report was approved.

Treasurer's Report - Treasurer Bill Simmons was not available for the January meeting.

COMMITTEE REPORTS

FIELD REPORT – Lee Patterson reported that the flag has been removed for the winter. Snow has been removed from the parking area. It was reminded that the runway is not plowed during the winter. A snow covered runway provides the opportunity to utilize skis or floats. Plowing creates piles of snow that due to there gravitational force, attract airplanes and cause grievous damage.

INSTRUCTION – Instructor Dan Compton reports that he hasn't been available at the field for training. Due to the cold weather there is little interest in training at the present.

SAFETY – President Ziska reminded members to properly maintain their batteries all year round, particularly in the winter. Nylon and plastic servo gears/control horns become brittle in colder temperatures. Take extra caution not to mistreat your equipment in the winter.

It has been reported that metal servo gears may not retain the servo horn screw as well as a plastic gear. The screws go in easier and back out easier. The results are not good. For a possible fix, canopy glue may be an option that remains flexible and keeps the screws in place.

MEMBERSHIP – Membership Chairman Al Zabel reminded that membership renewals are due. During January three new members were initiated into the FVAC. Please welcome the following new members:

Greg Garrett – Greg was involved in RC a number of years ago with gliders. He is now thinking of expanding into electric flight.

Bruce Thomas – Bruce is a novice pilot and has a Kadet Mk. II equipped with an OS 46.

Mark Knopke – Mark is an experienced pilot with interest in all manner of aircraft, ranging from gliders to turbine powered helicopters. His turbine powered helicopter has been included in an RC publication!

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EVENTS AND GENERAL BUSINESS

CHRISTMAS PARTY – The Christmas party was deemed a huge success. Members arranging the Christmas party were recognized. Julie and Randy Rhodes were recognized for their efforts on the craft raffle! The 2004 Christmas party will be held on December 10 at the Fisherman's Inn! Mark your calendars.

FUEL SALE – Last year Hobby Town sponsored a fuel sale for Club members. Club members are given a reduced price for fuel. Ken Kaiser, Hobby Town, is agreeable to continuing this activity in 2004. Details are forthcoming. Support your local hobby shop!

FIRST TO FLY – On January 1, 2004, at precisely 10:00, a mass launch was held to determine the first in flight for 2004. Alan Galle took the honors this year and received the traveling trophy. Approximately 8 aircraft participated in the mass launch. It was a pleasant day and many others completed their first flight of the new year.

FUN FLY – President Ziska reminded new members that Fun Fly events are held during the Spring, Summer and Fall. Events are held on the Saturday following the general business meeting at 10:00 A.M. There are four categories of competition ranging from Novice to Fun Fly. Novice pilots may have there instructor participating on the buddy box. Points are awarded for placing first through third. All pilots receive points for participation. During the November General Business meeting a points raffle is held for great RC paraphernalia.

NEW FIELD – Bob Walker reported that the new field committee is now working solely with the City of St. Charles to hammer out an agreement. A meeting of City officials will be held on next Friday to further discuss this matter. A lease agreement with the City is being finalized. The consensus is that everything is positive.

SWAP SHOP – Swap shop Chairman Steve Baker reminds that the date of the Swap Shop will be February 14, 2004. Volunteers will be needed at 7:00 A.M. for set-up and 1:00 P.M. to help tear-down. Given that February 14th is Valentine's day, it is a great opportunity to pick some neat RC stuff for your significant other!

It is important that the Club table be mentioned. Any unused RC equipment that members have is welcome. In the past significant funds have been raised with donations to the Club table!

Outstanding Landing – Two nominees were considered for this months recognition. Both events occurred on January 1. LeRoy Retzlaff was recognized for an incident that occurred on takeoff. LeRoy was not at the meeting to defend himself.

However, Mike Kostecki was present. Mike was piloting an unnamed members (we don't want to detract from this prestigious award) plane on the buddy box. During the buddy box pilot transition the plane re-kitted itself. Since the plane was an ARF, this is no small feat.

Needless to say, Mike Kostecki received the honors this month.

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SHOW AND TELL – Shayne Waterbly presented his framed-up Dyna Flight Super Decathlon power by a Moki 1.8. Shayne reports no problems with the kit. It will be finished in short order in a white and gold color scheme.

Ed Gombash presented his Kyosho P40 ARF equipped with an OS 46 and fixed gear. The plane looks and flies great! Ed would like to sell the aircraft for \$225.

John Meisch presented two of his most recent electric creations. The first aircraft was created from plans obtained off the internet. It is constructed from sheet Depron foam and weighs 11 ounces. Motivation is provided by a brushless motor producing 27 ounces of thrust via a 12x6 prop. Let's see, 27 ounces of thrust and an 11 ounce aircraft yields hover at ½ throttle. The motor draws 12 amps at full throttle. Approximately 15 minutes of flight is available using ETEK 1200 mah batteries, three cells in series.

The second Meisch craft is a HD3D Hi Desert aircraft. With a weight of 8.5 ounces this plane has a built up wing. Using the same brushless motor as the forgoing plane, two cells in series provide 18 ounces of thrust. This aircraft will also have excellent vertical performance and long flight duration!

Dave Murray presented his Sky Master F-18. The turbine powered aircraft has 28 pounds of thrust and is equipped with Robart retracts and elevons. 114 ounces of fuel is good for a 10 minute flight. A speed of approximately 130 mph is achieved at ½ throttle. A new wing kit is available for this aircraft providing aileron and flap functions. Dave will install the new wing kit in short order. The aircraft comes pre-painted.

Thanks to all members for sharing their projects with the members.

The meeting adjourned at 8:32 P.M.

Kevin Hersey
Secretary



From the Editor...

Have you worn out your simulator yet? Please let me know if there is anything you would like to see in future issues. The deadline for newsletter submissions is the 24th of each month. Web page submissions can be sent at anytime. Those of you that are serving on committees please send me important dates, times, and flyers a.s.a.p. so they can be posted on the web. I need current activity pictures i.e. meetings, fun-fly's and even normal "day at the field shots."

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Using a timer can improve battery life

By RED SCHOLEFIELD

This article originally appeared on Red Scholefield's Web site, www.rcbatteryclinic.com

One of the failure modes in Ni-Cd cells is shorting. While many things can contribute to shorting, one of the significant problems is cadmium migration through the separator where it forms a conductive bridge, ultimately shorting the cell.

Cadmium migration is a function of the time the charge current is flowing through the battery and less a function of the level of current. Therefore, we have found that high pulses of charge current to maintain the charge state are better than a steady low rate (trickle) current. This is difficult to quantify as many other factors contribute to the life equation, but improvements in battery life of 10-20% by pulse charging versus trickle are not unrealistic.

We have found that sustaining a pack at the fully charged state by way of pulsing the charge is better than a continuous trickle charge. Some chargers employ this technique. You can do essentially the same thing at a low cost using the following instructions.

Simply connect your regular wall module charger that came with your system to an appliance timer. Intermatic makes a good unit for around \$5. Set the trigger pins on the timer so that it is on for one hour each day. When you return from a flying session, turn the timer wheel so the on/off triggers come up in 14-16 hours. Then turn the timer knob on. This will give your pack a full charge and then a sustaining charge for one hour a day. The battery can be left in this manner for a long time between flights and can be maintained at a fully charged state with minimal overcharge.

If you only fly a couple of flights, you can just set the timer so you get six or eight hours before you go into the one hour per day mode. If we assume a normal two-hour flight time for a system and you only fly 20 minutes, then the charge you need to return is $20/120$ times 16 hours, or about three hours.

Know what your system consumes in the way of energy per minute of flight. This can be determined by first charging a pack and then discharging it on a cyclor to see how much capacity it has when fully charged. Then, recharge and go fly. Record your system on time and immediately discharge the pack when you return home. This will tell you how much capacity you have left. Let's say you fly for 40 minutes, and when you discharge the pack you get 390 mAh. From your initial discharge from a fully charged pack, you got 585 mAh. This means that you discharged 195 mAh in the 40 minutes you flew, or about 5 mAh per minute. From this information, you know that your pack is good for 116 minutes of flight time under the actual flight loads. Now, you don't want to take it this close, so give yourself (and your airplane) some margin of safety, about 25%. This sets your safe flight time to 75% of 116 minutes, or approximately one hour and 27 minutes.

Do this for each of your airplanes. Also, you should do this for your transmitter at least once to accurately characterize its "flight time." The system usage will vary, depending on your flying style, the size of the airplane, and the number of servos used.

from *Carrier Wave*
Phantom Flyers R/C Club
Ed White, editor
St. Louis MO

The Torque Roll

With Airplane Blaine

What it is:

Plane "Hovers" vertically in place, rotating left around its roll axis.

Plane set-up:

Full 3D throws in elevator and rudder are a must. An aft CG helps a little also. Some flyers will run their CG back to make this maneuver easier, however I have found that a plane that is balanced will Torque Roll just as good as one that is tail heavy. It all about getting the plane in the sweet spot. Once you get the plane completely vertical it become very easy. That is the hardest part is recognizing the true vertical plane. The pros will also tell you to add 3/4 degree of up thrust to your engine. This helps keep your plane from falling forward in the Torque Roll, and it'll fly straighter up lines in non-3D maneuvers, too.

How to do it:

The easiest way to learn is to start by learning the "Elevator" and then the "Harrier". After you have mastered this it is an easy transition to the Hover. Once you can "Hover" then "Torque Rolling" is the next step. As your plane descends in an "Elevator" start adding power as your near the ground this will transition you into a Harrier. All you have to do from here is give a short burst of power and your plane should stand up vertically. Adjust throttle to keep the nose pointed up and make corrections with rudder and elevator to keep things straight. One thing to remember is that most planes want to fall off to the left and toward the landing gear. (Tip: Most of the inputs that you give are up elevator and right rudder.) The throttle curve is key for this maneuver. Set your ATV or Travel to the maximum %. You will then need to find a servo arm that enables you to open and close the carburetor completely without backing down your travel. This is getting your throttle mechanically perfect as you can get it. The next step is setting up your throttle curve. This takes a little time and patience but it is well worth the time and effort. The key is that once you find the stick position that the plane will hover, you want to set your curve so that your are hovering when the throttle stick is at half throttle. You adjust your curve from there as needed to barley let the plane climb or descent with one click up or down on the throttle. This really keeps you from fighting with the throttle and lets you focus on controlling the plane.



Trickiest part:

Recognizing your correction when the plane's belly is toward you. (Tip: Think push the rudder toward the low wing when the belly is toward you.) You have to be fast with throttle corrections. Most flyers add "bursts" of power, along with rudder/elevator corrections. If you simply hold full throttle, you'll climb out of the maneuver. One of the most common mistakes is giving wrong rudder inputs when the plane is belly in.

Recovery:

Fly out at full throttle.

Reprinted from Blaine Austin's "Tech Tips"
www.blaineaustin.com

In This Issue... The Latest Club News, and More!

The Fox Valley Aero Club *Flypaper*



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Flypaper

