

PLANE TALK NEWS

Up Coming Events

Club Meeting

Nov.12th

7:30PM

DMACC Campus Ankeny

(See Map on Page 3)

Club Meeting

Dec.3rd

7:30PM

Location to be announced

Penguin Fun Fly

Jan. 1st

9AM EPJ Field



Another month has flown by. I am not ready to call it for the flying season just yet and am hoping for a few more good weekends. With the cooler weather kicking in, it is time to start on that project for next season. What do you guys have on the bench? Noah and I have been wrapping up his new 91" Extra 300. We are also starting to dig out the foamys and get them up for indoor season. If anyone knows of a location we could rent out a couple evenings a month please let me know. It would be great to have a place to fly in the winter. What do you guys have on the bench for the building season? Have a build or project you would like to share? Let me know and we will include it in the next newsletter. It was great to see everyone at the fall auction, we had a great turn out.

Please note the November meeting date and location.

See you at the field,
Duane



Camp AMA

Camp AMA is a week long summer camp held at the IAC in Muncie, IN. Campers are given the opportunity to learn and work on their flying capabilities with some of the best RC pilots in the world. Camp AMA accepts teenagers between the ages of 13 and 19 years old, with skill levels from beginner to advanced.

Campers will get the chance to work personally with instructors Nick Maxwell and Andrew Jesky. The AMA Youth Ambassadors will help the campers work on techniques as well as show the kids a few flight demonstrations. Instructors will use their expertise to train and teach the campers in all aspects of RC.

amaflightschool.org/campama

October Meeting

Board of Directors Meeting, 7:00 PM.

The following subjects were discussed and passed: Due to security concerns, new combinations will be set at both EPJ and Westfield effective Jan 1, 2014. The new combinations will be provided to each member upon renewal of memberships.

The TAG training program for beginning, prospective flyers and members will be redesigned next year. Changes may include a reduction of the nights of training as well as using both fields. Along with this comes a clarification of the purpose and use of the TAG program. The TAG program is specifically for the introduction of new flyers and non-members to our sport and hobby. We are trying to gain new members through this program. Members of our club that are new and need training will be trained by only the designated trainers as has been custom in the past. The two programs are separate and not part of each other. The TAG program will only be used at the specified times and places. Firm plans will be made with the new board after the New Year begins.

General membership Meeting, 7:30 PM The above was presented to the membership. Meeting was then adjourned.

Show and tell:

Flying weather was excellent both before and after the meeting. After the meeting, a few of our members demonstrated night flying with models with lighting installed in them.

Club Officers

- President Duane Vierling 238-0924
dwvierling@gmail.com
- Vice Pres. Tyler Riley 979-4195
tylerr@fehdm.com
- Secretary Keith Page 210-8953
Pathfinder_Page@msn.com
- Treasurer Jim Lewis 289-1144
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Board:

- LaVerne Sanders
- Dennis Roy
- Ed Niles
- John Faust
- Bill Garrett
- Alan Annear

Newsletter Editor

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Membership

- Jim Lewis 289-1144
1479 NW 71st PL
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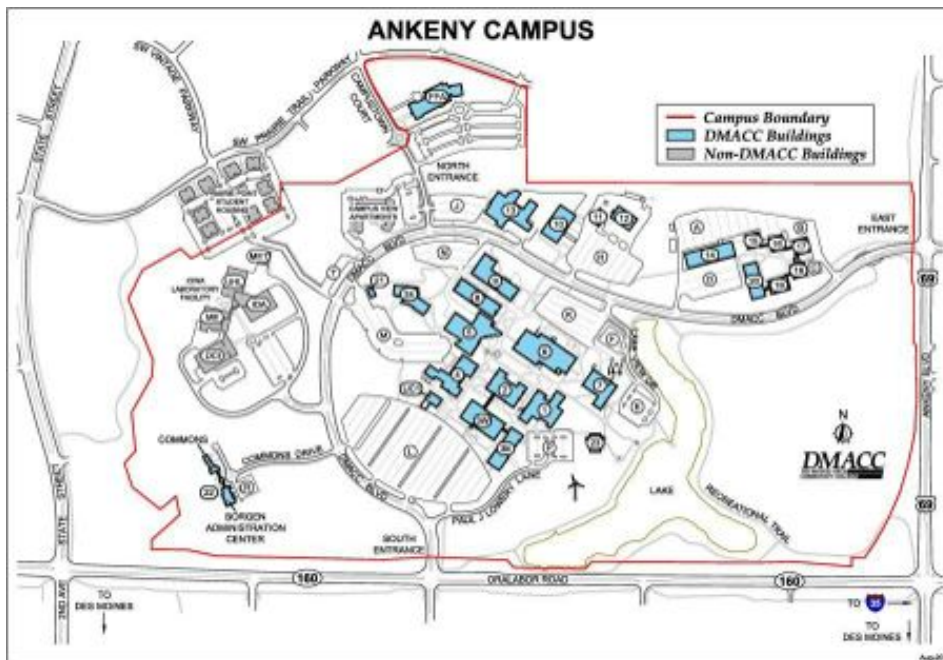
Want to learn to fly RC?



Club Instructors

- Mode 2 Jerry Proudfit 987-1937
- Mode 2 Joe Pitts 360-4471
- Mode 2 Jim Lewis 289-1144
- Mode 2 Darwin Chapman 964-8872
- Mode 2 Duane Vierling 238-0924
- Mode 2 Tim Nissen 964-9307
- Mode 1&2 Doug Griffith 480-1585

Please call the instructor to make an appointment.



The meeting will be in rooms 207 and 208 in the training center of the Iowa Laboratory Facility located at the west end of the DMACC campus. Best entrance is DMACC Blvd. off of Oralabor Rd. the lab facility is on the left just past the admin bldg. Parking lot with flags at the north end.

MODELAIRES MEMBERSHIP 2013 APPLICATION

NAME _____ PHONE _____
STREET ADDRESS _____
CITY _____ STATE _____ ZIP _____ AMA NO. _____

IF YOU GO SOMEWHERE ELSE FOR PART OF THE YEAR, GIVE OTHER ADDRESS ON THE BACK AND MONTHS YOU WISH THE NEWSLETTER MAILED TO THAT ADDRESS.

DO YOU HAVE AN EMAIL ADDRESS? PLEASE PROVIDE TO GET YOUR NEWSLETTER AND CLUB ANNOUNCEMENTS _____
IF YOU DO NOT HAVE EMAIL, WE WILL SEND YOUR NEWSLETTER LAND MAIL

YOUR AGE _____ YOUR BIRTH DATE, PLEASE MO. _____ DAY _____ YEAR _____

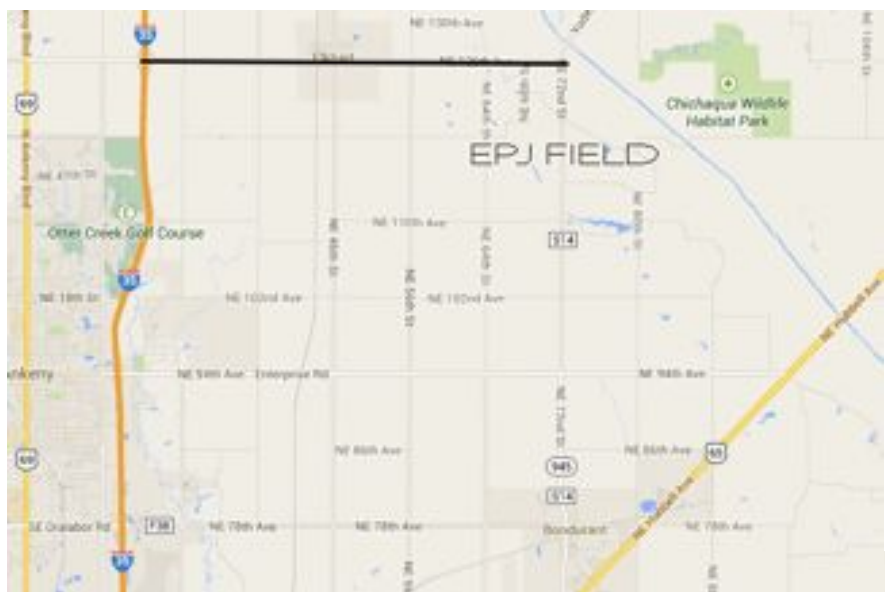
1. **FLYING MEMBERS:** NEED AN AMA MEMBERSHIP AND MODELAIRE MEMBERSHIP. CAN FLY AT OUR FIELDS, VOTE AND BE AN OFFICER, TAKE PART IN ALL OUR ACTIVITIES, RECEIVE OUR NEWSLETTER.

2. **SUPPORTING MEMBERSHIP:** (NON-FLYING, CAN VOTE, CANNOT BE AN OFFICER) NO AMA REQUIRED, NEED ONLY MODELAIRE MEMBERSHIP. MAY TAKE PART IN ALL OTHER ACTIVITIES, RECEIVE OUR NEWSLETTER.

DUES: ADULT (19 & OVER) \$75, SPOUSE \$20. YOUTH (18 & UNDER) \$5. ADULT PARK FLYER \$30. ADULT FAMILY \$100. AFTER JULY 31, DUES ARE \$40 FOR THE REMAINDER OF THE YEAR. DUES COVER JANUARY 1, 2013 TO DECEMBER 31, 2013.

SEND TO: Jim Lewis 1479 NW 71st Pl. Ankeny, Iowa 50023. EMAIL: CLONE2TB@GMAIL.COM PHONE: 515-314-7904

MAKE CHECKS TO: DES MOINES MODELAIRES ****INCLUDE A PHOTOCOPY OF YOUR 2013 AMA CARD or AMA RECEIPT****



Lithium Polymer Battery Storage Tips

Lithium polymer batteries (lipos) power our electric model airplanes. With sizable inventories of packs that represent a fair investment, getting the longest life out of our lipos is in our best interest. Two words: proper storage.

The bulk of a packs lifetime is spent in “non-use”. The conditions packs see during the cumulative days, weeks, months and even years of storage takes its toll. A unique characteristic of lipos is their life span is dependent upon aging from time of manufacture and not just on the number of charge/discharge cycles. An older battery will not perform as well as a new one, due solely to its age. This drawback is not widely publicized or know by the typical user.

As lipo batteries age, their internal resistance rises. This causes the voltage to drop under load, reducing the maximum current that can be drawn. Additionally as lipos age, usable capacity is lost. Typically once a battery has lost 20% of its rated capacity it considered at the end of its useful life. It’s a fact, lipos age and degrade even during non-use. What can we do to minimize these effects? Manage two factors that are totally in our control: cell storage voltage and storage temperature.

Storage Voltage:

A fully charged lipo cell is approximately 4.2 volts. Lipos are different from other battery chemistries as they should never be stored fully charged. Lipos should be stored approximately “half full”. Many of the newer lipo balance chargers have a “Storage Mode” which charges the pack to the proper reduced voltage state for storage purposes. The popular FMA CellPro charger charges cells to 3.85Vdc in Storage Mode. Check your charger manual, some chargers can both discharge the pack and then charge up to the storage level, while others can only charge up to the storage level. The later type charger requires you to discharge the pack below the storage level to take advantage of the storage feature. Storing your packs at the proper voltage level is the simplest thing you can do to lengthen their usable life span (assuming proper application and use). Storage is not just “over the winter”. If you only fly on the weekends, your packs are technically in storage all week, week after week during the entire flying season. Those cumulative hours can add up slowly degrading your packs.

Temperature:

Lipo batteries function via a chemical reaction that occurs inside their sealed foil envelopes. Providing power is a chemical reaction, while the aging/degrading process is another chemical reaction. If you remember back to high school chemistry, a chemical reaction doubles its speed for every ten degrees increase of ambient temperature. This is why lipos don’t perform as well in cold weather. The cold “slows down” the chemical reaction process. But this fact can work in our favor when it comes to lipo storage. Reducing the storage temperature slows the chemical reaction of the aging/degrading process. There is a limit as to how cold is OK. Lipos don’t want to be frozen solid, but keeping them cool during storage is most certainly in our favor. It turns out the typically household refrigerator (37 to 40 degrees) is the perfect storage place.

Put lipos in plastic zip top storage bags and place them in the fridge when not in use. When you take them out leave them in the bags, to prevent any atmospheric moisture from condensing on them as they warm. After they’re at room temperature, use them as you normally would. To see it all in black and white look at the table below...it tells the whole story.

My typical routine for a Saturday morning flying session: Friday night when I get home from work I take the storage bags of lipos out of the fridge to warm. After dinner I charge the packs as I’m prepping my planes and loading the car. Saturday morning I go out and fly. Saturday afternoon when I return from the field I discharge all my packs (used or unused) to slightly below the storage voltage of my charger. I then put each pack on a CellPro charger set to Storage Mode. The packs then go back in their storage bags and are returned to the fridge. I don’t leave a pack fully charged or at room temperature for more than 24 hours if at all possible.

Is this all necessary? I’ve reviewed CBA battery analyzer discharge graphs of packs that were base lined brand new and put in “proper storage” for over 3 years. When CBA tested again years later the packs were virtually identical to the “brand new” discharge graphs. Capacity and current sourcing ability were unchanged. So how long a pack last is in a large way up to you. It’s your decision on what you want to do to care for your batteries. It doesn’t take much effort to get the most out of your lipo investment. Like others, I bought a small “dorm refrigerator” for my shop for storing lipos (after my wife threw me out of our kitchen refrigerator vegetable crisper drawer). Refrigerators are a good place to store CA and alkaline batteries too.

Permanent Capacity Loss versus Storage Conditions		
Storage Temperature	40% Charge	100% Charge
0 °C (32 °F)	2% loss after 1 year	6% loss after 1 year
25 °C (77 °F)	4% loss after 1 year	20% loss after 1 year
40 °C (104 °F)	15% loss after 1 year	35% loss after 1 year
60 °C (140 °F)	25% loss after 1 year	40% loss after 3 months

Source: BatteryUniversity.com

Info taken from Salt Lake City Ute RC Association

- We fly radio controlled model airplanes at two private flying fields.
- Our meetings are the first Tuesday of each month and there is a program of flying interest plus show and tell at each meeting.
- Members are mailed a monthly newsletter.
- We have a club Christmas and Awards dinner.
- The club sponsors Fun Flys and Summer Club Family Picnic Flys.
- We help run the SIG Fun Fly at Montezuma Iowa.
- The Modelaires will demonstrate R/C flying anywhere that we have room to safely fly.
- Members present model building and flying programs to groups in this area.
- We hold a spring swap meet and a large fall R/C auction.
- We have a pilot training program with booklet and award a solo certificate to members that we train (FREE) to fly. There are instructors to help you learn to fly Radio Control!
- We are one of the top clubs in America. You must join AMA before you can join the Modelaires.



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