



# HI-SKY R/C FLYER

February 2009

Volume 38 Issue 2

President: Chris Rutter  
Vice President: Gilbert Hernandez  
AMA Charter Club #851

Treasurer: Ed Anderson  
Secretary: Ralph Gillette  
www.hiskyrc.com

**Meeting:** The February 2009 meeting will be held in the First Baptist Church Activity Building February 3, 2009. We will be meeting downstairs in the arts and craft room (unless the usual room is available). The meeting will start at 7:00 PM.

**The 2009 dues are due:** If you are unable to come to the meeting, you may mail your payment by check or money order with a copy of your 2009 AMA card to:  
Hi-Sky R/C Club  
PO Box 81012  
Midland, TX 79708

Enclose a self addressed stamped envelope if you want to have your card mailed to you. Or you may pick up your card at the club meeting. By paying your dues on time, you help our treasurer do his job.

**HI SKY R/C Club Minutes: January 6, 2009**

Meeting was held at the First Baptist Church.

Meeting called to order at 7:02 PM by President Chris Rutter. 19 members and 3 guests were present.

**Minutes:** Minutes were approved as published in the newsletter.

**Field Report:** Field looks pretty good. Weeds are

**Hints for Setting Up Your Airplane**

By Richard Lindberg  
Rocky Mountain Flying Machine Albuquerque, NM

- 1 Alignment of wing.
- 2 Incidence of wing.
- 3 Alignment of stab
- 4 Incidence of stab.
- 5 Engine Thrustline - all directions. Is it correct?
- 6 Ailerons - TE aligned with wing TE. Straight.
- 7 Elevators 1 - TE aligned with chord line of Stab.
- 8 Elevators 2 - TE aligned with each other.
- 9 Rudder - Aligned with FUSE centerline.
- 10 Control Travels 1 - same BOTH directions - all surfaces.
- 11 Control Travels 2 - "balanced" aileron and elevator throws.\*
- 12 Radio - Expo on aileron, elevator, rudder, at LEAST 25% to start.
- 13 CENTER OF GRAVITY (balance point) [Static] <empty tank> Set per the manufacturer, your experience, then FORWARD at least 1/4".\*
- 14 Landing Gear - check EVERY piece. Align wheel track.
- 15 Control system - check EVERY piece. Loctite, glue, tighten as needed, then check again!!
- 16 Canopy, belly pan, cowl, prop, spinner, tailwheel - Check every screw, washer, nut, bolt, latch. They have to work HERE, to work THERE!!!!
- 17 Tank plumbing-tank tubes, lines, clunks, tees.

*continued on page 3*

**INSIDE THIS ISSUE**

- 1 Minutes
- 1 Hints for Setting Up Your Airplane
- 2 From the Robbins Nest
- 3 Charging That New Battery
- 4 Calendar of Events
- 5 Soldering

*continued on page 4*

## From the Robbins Nest:

### HORSESHOE ARENA INDOOR FLY-IN UPDATE: Oct. 16, 17, 18, 2009

A lot of things have happened since our last club meeting, and the Horseshoe Arena Indoor Fly-in is off and running. Several people have already been involved in getting some important preliminary work done, like the AMA sanctioning. I'll list some of these items a little later in Task update section. I would like to begin by thanking Jeff Laufer, Ed Anderson, Chris Rutter, and A.J. Lee for the work they have already done in helping this event get off the ground, and yes, we are airborne at this time. But first, here is the preliminary committee.

Dennis Robbins- Committee Coordinator, Internet publicity, Horseshoe liaison, F3P, event host

Jeff Laufer-sponsors, publicity

Jim Ruple-event manager, safety, general public control

Bruce Hoover-raffle

Ed Anderson

Ralph Gillette

We need someone to consider helping with the following areas

Registration-sign pilots in, collect monies for landing fees and raffle

Hi Sky Booth-This will be a club display of gas & electric planes, free magazines, possibly a flight simulator, club registration for new members, etc.

### TASKS UPDATE

1. Contract with the Horseshoe Arena-done
2. AMA sanction and approval-done
3. Contact sponsors for donations
4. Begin raffle donations

Several gracious club members have said they would donate funds to help get this event up and running. If you would like to help out also, bring a check to the club meeting, and you will be recognized as a sponsor at a later date!

If you were one of the folks who said they would be willing to help, you can give your donation to Jeff Laufer. We already have some financial needs to help cover the deposit with the Horseshoe, so donations at this meeting would be very welcome, and appreciated.

I think this has the making of a premier West Texas event, and should be very well attended. I'm looking forward to working with the committee, and being involved with such a grand venue!

Dennis Robbins

down. Jim Tarrt will check to see if we need to install new safety fencing and report back next meeting. Jim Ruple is getting some brushes and paint to refurbish the buildings and structures around the field. Will try to set up something about 1 March.

**Safety Report:** Everything has been safe. Keep up the good work.

**Treasurers Report:** We have money in the checking, savings and CD accounts.

**Activities:**

IMAC – We will join Odessa club again this year.

Calling of the Hogs – Planned for second week in September, 12<sup>th</sup> & 13<sup>th</sup>.

Fajita Fun Fly – Planned for second weekend in June, 13<sup>th</sup> & 14<sup>th</sup>.

Fun Flies – It was discussed and agreed that we need at least two fun flies this year. Dates picked were April 11<sup>th</sup> and July 11<sup>th</sup>.

**Old Business:** Jim Ruple reports that the numbers are ready for the frequency board. Jim is going to fix it. No cost involved.

No more problems with somebody flying without an AMA card. Need to watch that people are flying legal, wither with an instructor pilot or on the buddy box. They only get three outings with an instructor before you have to have your own AMA card.

**New Business:** Dennis Robbins reported back on the use of the Horseshoe for the fun fly this year. We can get the facility for two days and \$2000. If we pick the right weekend, we can also get Friday for free. This will give us three full days of electric flying. Dennis suggests we have a special raffle; open to anyone and a silent auction for the pilots. We do need to get some local businesses to sponsor the event, for some advertising, which will make it easier to put on the show. With three days to fly, we can set up a 3D contest on one of the days, possibly Saturday evening about dinnertime. Need to set up committees to handle the details. Shooting for October 17<sup>th</sup> and 18<sup>th</sup>. Need to check this against the Air Sho timing. Several people signed up with Dennis to help with the details.

**Show and Tell:**

Gilbert Hernandez brought his new combat wing powered by a Mag XL15. His own design. Flies fast, turns quick.

Chris Rutter brought his new Great Planes Electric Corsair. Big, heavy, uses an AX 46 for power. Comment was made that it wouldn't make it in the indoor fly-in.

Dennis Robins brought his new Osiris foamy. Weights in at 4.8 Ounces all up.

**Club Raffle:** No raffle.

**Next meeting:** At the Baptist Church, 7:00PM February 3<sup>rd</sup>.

Meeting adjourned at 8:15 PM.

\*\*\*\*\*

**Charging That New Battery**

By Stan Grett and Jim Kale  
From Wiregrass RC, Enterprise, Alabama

In recent months, we have heard a lot of discussion on how to charge a new airborne battery or transmitter battery. Charge times have been recommended from 12-24 hours. Dave Thacker of Radical RC is the battery guy I listen to. He recommends charging the new battery packs at 1/10 of the mAh, which is normally referred to as "C." This rate is often referred to in magazine articles and manufacturers' directions as C/10. He recommends that rate for 16 hours. Most NiCD manufacturers also recommend this.

*So, if your battery is rated at 1500 mAh; then charge it at 150 mAh for 16 hours.*

Be careful, if your charger charges at less than the C/10 rate, you will have to charge it longer. However, extremely long over charges are bad for the battery pack and will shorten its life. Also high charge rates can shorten the battery life if there is anything overcharging at all.

Cycling a new battery pack will help it get off to a good start in its new life. A good regiment to follow is to cycle it for three charge/discharge cycles over a week-long period. If it passes this test, it should give a good long life if maintained and charged properly.

Cycling a new battery pack before the start of each flying season and after the flying season will give you a good idea how the battery pack is holding up over a period of years.

Generally speaking, any battery that is more than three years old is on borrowed time. However, I do know of cases where battery packs lasted as long as seven years. You are betting your airplane though if you try to squeeze just a little more out of your battery pack than it has to give. Battery packs are cheap when compared to replacing airplanes.

## CALENDAR OF EVENTS

PERMIAN BASIN MODEL AIRCRAFT CLUB

ODESSA CLUB FIELD

FEBRUARY 28, 2009 (9:00AM TO ?)

No charge for tables – Your chance to look for good things.

SAN ANGELO T.I.N.Y.

SAN ANGELO COLISEUM

MARCH 6 – 8, 2009

Check website for more details.

WEATHERFORD, TX ANNUAL SWAP MEET AND AUCTION

HALL MIDDLE SCHOOL

MARCH 20 & 21, 2009

\$5.00 admission each day and \$10.00 table rental.

\*\*\*\*\*

### FOR SALE:

Great Planes Kaos kit .61 size. 58 inch wingspan - Aerobatic to say the least - \$75.00

Hitec CG335 Field charger for NiCad batteries. Glow driver, 4-24 cells input voltage 9-13.9 volts - \$35.00

If interested call Henry Smith @ 570-6262 or email at [hksmith35@prodigy.net](mailto:hksmith35@prodigy.net)

\*\*\*\*\*

### Picked Up Passing By

We had a very good attendance at the January meeting. Many topics were discussed including our “calendar” for 2009. The big electric event will need the participation (translated “work”) of a large number of members if we pull it off. Dennis Robbins has some great ideas about how to do a large percent of it but will need a great deal of help. Dennis can’t do it all by himself. He must have help!

I hope you will read and study the article that begins on the front page. These hints for setting up your airplane are based on years of Jim Lindberg’s experience. Jim is a pattern flyer with several years of experience. I can remember my first models were built without thinking about almost all of these things he recommends. My first r/c model, a Falcon 56 trainer, was built on an old freezer. Needless to say the wing was warped and I won’t mention the other problems with the airplane. The way it flew was lacking in smoothness to put it mildly. I have tried to learn better ways to build and/or assemble model airplanes.

Another good article in this newsletter is about charging NiCd batteries. That “wall wart” you got with the radio may not be the best for charging that new pack.

checkvalves, plugs.

18 CENTER OF GRAVITY - see step 13. Write down someplace.

19 CONTROL MOVEMENTS - correct directions, and amounts. Write down.

20 Battery check - battery check - battery check!!!

21 If Xmtr permits, "copy" this airplane to another, save with a version name, and KEEP it there UNCHANGED! It is your ORIGINAL, in case you 'program' yourself into an unflyable condition!

The items marked \* are based on my personal experience and are my preferences. I like a balanced feel to elevator and aileron, hence the setup I listed. Same for expo. In most control systems we use these days, you need about 25% or so to get to the "linear" travel point on the system you have. So, if you set 30% expo, remember it's only 5% "real" expo. The reason I recommend the forward CG is that many fliers mistakenly set the CG on their airplanes too far AFT. Until you have PERSONALLY tried a slightly forward CG (like suggested above) you won't believe how much BETTER your airplane will fly ....trust me on this ...try it, you'll like it!!

BTW - Item 20 - EVERYTHING associated with your airborne AND transmitter batteries needs to be checked by you at least twice, then your spouse or Significant Other, then whoever is at the field when you put the thing together. Trust me!!! Now, this is not a comprehensive trimming chart, but it is a handy reference checklist for that new plane you're either building or preparing to haul to the field. By the way - if you aren't ALREADY in the habit of writing down your particular airplane setup, begin now. Knowing where you started from makes things a LOT easier when you are at the field tweaking everything. And don't forget to DATE your lists. The important idea is to keep a record of where you ARE, so you can more easily figure out where you WENT.

Happy building and flying!!!

\*\*\*\*\*

“Make yourself necessary to somebody”  
Ralph Waldo Emerson

Watch for snakes around the field. The warm days may give them the boost to move around. They may be living in one of the “gopher holes”.

## **Soldering: It's All About Heat and Clean**

By Tom Ball

From the Sacramento Valley Soaring Society, Novato, California

When I was teaching school back in the 1950s, I got a summer job with the company that installed the first dial telephone system in Elk Grove. Eventually I moved on to other jobs as the work progressed, but initially what I did was solder each wire from a 200-pair cable to terminal blocks eight hours a day. By the end of the summer I had a pretty good idea how to attach two items together with molten metal while avoiding the dreaded "cold joint."

I just finished doing all the wiring for a new 1/5-size Cub that I am converting to electric power. While I had all the gear out, I also changed the terminals on three batteries that I bought at the last swap meet. This seemed like a good time to write an article I had suggested some time ago.

Before I get to the preparation of the actual materials to be soldered, let me talk for a minute about irons, solder itself, and tools. My standby is an older model Weller 8200 rated at 100 watts. I love this gun because it is ready to go as soon as the trigger is pulled and I can lay it back down on the bench without wondering an hour later if I turned it off. For really heavy work, like joining 1/8-inch piano wire for landing gear, I have a conventional 100-watt iron made by a company called Drake. My third iron is a small Ungar, which does not show wattage, but it has a very fine tip and is good for jobs like re-attaching a broken wire to a speed controller.

For solder I used a good quality resin core 60/40. The last numbers refer to the proportions of lead in the mixture to tin. The flux I happen to have on hand at the moment is Otaey No. 5 solder paste. On hand means it has probably been around five or six years. With paste, a little goes a long way.

Many of the tools I use, like needle-nose pliers and small files, are just normal bench tools. A more specialized tool I almost always use is called a "third hand." It consists of a base supporting frame with two opposing alligator clips, which can be twisted and moved to almost any position.

By gripping the two parts to be soldered and holding them firmly together through the entire process, it helps eliminate burnt fingers and failed joints because of movement before the solder has completely cooled. The last two tools that always come out when I set up a job are a simple wire stripper and a small bronze brush which I use to clean off the tips of the irons when they start looking a little dull.

For a perfect solder joint, both surfaces must be clean enough and hot enough that the solder will melt and flow evenly on both items. Any dirt, rust, corrosion, or other foreign matter on either surface will prevent the solder from sticking to the dirty area and will cause a weak or imperfect joint.

This is less of a problem when dealing with new components and fresh wire than when doing repairs or reusing old components. Sandpaper, files, a Dremel tool, and the wire brush I mentioned earlier can all be used to get a bright and shiny surface. When doing repairs, I cut back enough fresh wire if the wire is long enough to allow it.

One way to guarantee that you are dealing with two clean surfaces is to apply a light coating of paste and solder to each surface before you make the actual joint. This is sometimes called tinning and will show up any places that are not willing to take solder. Once both surfaces are tinned, they must be held together in some immovable way through the entire process, from the application of heat to the final cooling when the solder itself turns from bright to dull. If you are going to do this without some type of jig, be sure to use pliers. There is no way you can hold something with your fingers close enough to the joint to be effective without burning yourself. For larger jobs, I use everything from small vises to C clamps.

The actual soldering is generally over within seconds. The trick is to position the iron so that both surfaces are heated to the point where solder melts and flows. For small jobs such as soldering wires onto plugs or terminals, you can generally get enough solder on the tip of the iron before applying it to the area. If more solder is needed, for example when building a heavy-duty landing gear, push the end of the solder right into the heated area but don't overdo it. Excessive solder buildup does not make for a stronger joint. Also, keeping an iron in an area until wire insulation and other components are melted does not make for a better job.

One last point to watch out for is the so-called cold joint. A true bond will be made only when both surfaces become hot enough to solder. Be sure that the tip of the iron comes in contact with both surfaces long enough for this to occur. Cold joints will often look fine and may even hold for while, but they have a nasty habit of failing on final approach.