



# HI-SKY R/C FLYER

November 2006

Volume 35 Issue 11

President: Gene Laughlin  
Vice President: Bruce Hoover  
AMA Charter Club #851

Treasurer: Ed Anderson  
Secretary: David Harrell  
www.hiskyrc.com

### Meeting:

The November 2006 meeting will be held at the First Baptist Church Activity Building at the corner of Garfield and Louisiana November 7, 2006. The meeting will begin at 7:00 PM. Gene Laughlin will give a demonstration on covering with the plastic films. There will also be a nomination for new officers for 2007.

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### HI SKY R/C Club Minutes: October 3, 2006

Meeting was held at the First Baptist Church Activity Building.

Gene Laughlin brought the meeting to order.  
There were 17 members present.  
The minutes were approved as written.

**Field Report:** Bruce Hoover reported that the field looked good. Bruce plans to have the port-a-potty serviced more times for this year.

**Safety Report:** AJ Lee suggested that when you are retrieving your plane from the pasture, be sure to wear long pants and watch for snakes and Gene Laughlin concurs. (This was the voices of experience speaking.)

**Activities:** The CAF fly in was a success with lots of flying in the CAF hanger. Thanks to Bruce Hoover for running the concessions and Jeff Laufer and Steven Bowers for getting donations of food and drinks for the concessions.

The Hog Fly was held on a windy day. There were 9 pilots registered. 12 people ate ribs and only 4 flights were made. Everyone in attendance had a good time.

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### October 2006 Safety Notes AMA District VIII

By Jim Rice AMA District VIII Safety Coordinator

I may have already said it but it doesn't hurt to say it again....  
**Safety is everybody's business.**

If you are an AMA member, you need to be concerned with safety at your flying field. It is easier to take the heat from a fellow club member for correcting him or her for a safety violation than it is to take that same person to the hospital or the morgue.

I own a hobby shop and it used to worry me to stop people and correct them on safety issues but one day it dawned on me that if one person creates a serious enough safety incident it could cost us a field which would really hurt my business. If that person maimed or killed another good customer/friend, I would be out a customer anyway and if they did any of that without me trying to intercede and make a difference then I would probably never forgive myself. So, the result has been that I take safety to heart every day at every field and I am as gentlemanly and tactful as I can possibly be so as not to aggravate a customer while at the same time fixing a problem at the field. Generally it is not necessary to scream at or humiliate a person who is violating safety rules; a gentle reminder can usually do the trick. However, if it is really serious and a nudge doesn't do the trick, it may be necessary to take a more forceful approach or even call in assistance from your club board of directors.

It is important that we all have the opportunity to fly in a safe environment. I have seen pilots land, pack and go home to avoid flying with or being around a pilot who is dangerous or drinking and flying. That only allows the standard to be lowered. I worked for a really smart Major General once who drilled into all of us the fact that if you walked past a problem and didn't correct it, you set a new standard and it was lower.

That same philosophy applies to our flying fields. If any of us observes a problem and doesn't try to fix it, we have told the perpetrator that what they are doing is OK with us. Complaining to each other about the problem without confronting it only aggravates you and your friends while appearing to condone the activity. Find a way to bring it up or get someone else to do it but don't wait until the next club meeting or tattle to the Safety Officer. It really needs to be fixed at the time of occurrence so it can be discussed, if necessary, between all parties present at the time.

Every accident involving safety should be drilled into your mind and reviewed from every aspect to insure that you know

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From the Robbins' Nest:

## Two chances to win!

Win either the receiver or foam airplane kit, or if your really lucky, maybe both!

New GWS R4P II receiver (choice of either Futaba/Hitec shift, or Airtronics/JR shift)

Mega Electric Mini Fat 3D Plane Kit! Don't miss this meeting! We are going to raffle off a very complete Mini Fat 3D kit. When I say complete, that's exactly what I mean. Everything is included to finish this plane. Just add your own receiver, motor, servos, and speed control, and go fly! This is what you get:

**Complete cut blucore foam kit**  
**2 packages of Dubro mini EZ connectors**  
**2 packages of Dubro mini control horns**  
**1 package of Dubro micro EZ links**  
**.032 piano wire for push rods**  
**All carbon fiber is included for the wing spar, and elevator**  
**Homemade pushrod stand offs**  
**1/64" ply reinforcement pieces for the control horns**  
**Carbon fiber tubes and latex tubing for a motor flex mount**  
**Double sticky foam tape for attaching servos**  
**Velcro for battery. Receiver. and speed control attachment**  
**Photos of my plane to help with the assembly**

Specs: 24" wingspan, weight without the battery is about 4.5 oz.

The mini Fat 3D kit is the little brother of the larger plane we have given away in the past. I personally own one of these planes, and can testify that it is a great little outdoor plane that actually flies like the larger planes. This aircraft will even fly in light wind, is very maneuverable, and is very easy to assemble.

The motor I am using is a homemade CD rom motor, but others such as the Feigao replacement motor, or a Komodo KH 257 would work great. There are many other choices, and I will help you decide on a good selection. I'll even include several close-up photos of my completed plane to help you with the construction. If you ever wanted to get into electrics, this would be a great first plane, because it flies as close to gas as anything I have ever seen, and is incredibly maneuverable.

The only catch is that you have to attend the meeting to have a chance at winning!

**Monokote technique demonstration:** Gene has volunteered to demonstrate his club famous techniques for covering a plane. I will bring a small section of a built-up wing, and he will cover it for us at the meeting. Come see how the pros do it! (I know, I know, but it sure sounds good in print!)



What the Mini Fat 3d looks like



Bottom view of Mini Fat 3D

## Mini Fat 3D kit



Photo of mini Fat 3D kit



Included parts in kit

## GWS pico R4P II (four channel receiver)



**Old Business:** Our electric bill is still unusually high again. Mike Chase will read the meter and Ed Anderson will call the electric company and discuss the issue. Gene Laughlin has discussed the new flying site at the old Cole Park with the City of Midland Parks Department. We have not been able to come to an agreement with the city at this time. Gene is trying to schedule another meeting for more discussions.

**New Business:** Jon Wheeler suggested that when we open the gate, lock the lock in the chain and set the tumblers to zero.

The Meeting was adjourned.

**Show and Tell:** Ralph Gillette brought a Shogun 400V2 helicopter with collective pitch, a brushed motor and belt drive rotor.

Bruce Hoover brought a Mini 3DX cut from blue core foam. It has a hand wound CD rom motor with 16 turns of 26 gauge wire.

Curtis Stone brought a Great Planes Slo Poke covered in blue and white monokote. The engine is an O.S. LA .40.

Gilbert Hernandez brought a combat flying wing. It has a bladder type fuel tank. The bladder fuel tank is made from a 5 inch piece of latex tubing. You have to use a syringe to fill the tank.

**Club Raffle:** A GWS R4PII receiver was the raffle item. The raffle was won by Ralph Gillette.

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**Picked Up Passing By**

Curtis's SloPoke flies as good as it looks. I watched Bruce Hoover making the checkout flight and it looked great. Bruce said he had to add one or two clicks of up trim and that was all. Before the flight, Curtis remarked that he had to add a lot of "ballast" in the nose and he was afraid it was still tail heavy. Curtis, Great job on the SloPoke.



Here is a picture of the Slopoke at the flying field.

If you have any questions or concerns about covering with plastic film, you need to make the next meeting. Our own Gene Laughlin will give a demonstration using a wing

donated by Dennis Robbins. A. J. Lee offered a wing, but for some reason Gene turned him down. Here are some pictures from the flying field.



Gene Laughlin's Dog House Extreme with HP 0.61



Jim Ruple's Hyperion Cap 232

Don't forget to vote in the election for the AMA District VIII Vice President. There are three candidates for that position this year.

At this next meeting we are going to nominate a new slate of club officers. Maybe some will be serving another term. I think our current officers have done an excellent job of guiding our club. I urge each and every club member to give careful consideration to serving as a club officer. I asked Gene Laughlin if he would run for president again. He said that he will be very busy next year and could not devote the time to the office. So we will need someone to fill that position. Thank you Gene for your leadership in serving our club over the last couple of years.

As Dave Brown, AMA President, said "Modelers are the greatest people on earth-even when they are arguing with you."

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You cannot do a kindness too soon, for you can never know how soon it will be too late. Ralph Waldo Emerson

Absurdity: A statement or belief manifestly inconsistent with one's own opinion. Ambrose Bierce

There's nothing I like less than bad arguments for a view I hold dear. Daniel Dennett

## CALENDAR OF EVENTS

We need to fill out our schedule for 2007. The following is a *suggestion* using similar weekends.

### Fajita Fly-In and Swap Meet

April 21, 2007

### Joint IMAC Midland and Odessa

May 26 & 27, 2007

### CAF Electric Fly-In and Swap Meet

July 14 & 15, 2007 (This date must be cleared with the CAF)

### Callin of the Hogs

September 8 & 9, 2007 or the first weekend following the CAF Airshow (October 13 & 14, 2007). It will be cooler in October, maybe.

Did you know that the Astro Hog will be 50 years old in 2007? There should be a *special* fly-in for this reason. We have down played this fly-in the last few years. I am suggesting awards for best Hog, best military Hog, long distance Hog, and different Hog. We should have a raffle for a kit at the least. If it's an Astro Hog Fly-in why not an Astro Hog kit for a prize? We can have others to go along with the kit. Maybe something for the non-r/c'er. We could sell tickets to other people for that raffle.

These are only suggestions that I have come up with. They are subject to the wishes of the club. In other words, the members of the Hi-Sky R/C Club (you) must vote on them. If you have other ideas, present them at the club's meeting.

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### For Sale:

Top Flite Spitfire kit.... 0.60 size... Complete NIB \$75.00  
 Top Flite Airacorba kit 0.60 size with cockpit kit. \$75.00  
 World Models Clipped wing Cub (electric power) ARF new in the box. \$60.00  
 Horizon Hobbies PT-19 (electric power) ARF new in the Box. Almost ready to go. \$60.00  
 Contact Bill Coombes at 689-8359 or email at:  
[Snj24@earthlink.net](mailto:Snj24@earthlink.net)

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Hitec CG-335 NiCd field charger (4 to 24 cell packs) \$40.00  
 This is a great field charger for NiCds only.  
 Goldberg Cub with 2 JR servos in wing. Ready to fly. Just Add your radio and engine. \$120.00  
 Contact Henry Smith at 570-6262 or [hksmith35@prodigy.net](mailto:hksmith35@prodigy.net)

what caused it, what should have been done to avoid it and what you will do in the future to prevent recurrence.

Just a couple of examples of this....I had a friend hit in the face with a Taurus and it buried the Enya 60 in his cheek all the way to the carburetor. As it turned out, the injured guy had gone dead stick and was walking across the runway to retrieve his airplane and the other guy was making a low fast fly by. He was turned toward his airplane and could not see the first guy walking onto the runway behind him. He saw him only as his airplane collided with him. It was all avoidable! Simple communication between pilots would have prevented the incident. I make sure I loudly call out "On the field" and make sure everyone in the air at the time acknowledges before I walk across the dead line and then yell "Clear" when they can use the runway again.

A second incident involved a man starting a G-62 with a starter and the assistant holding the large aircraft by standing in front of the horizontal stabilizer. As the starter was pressed against the spinner, the airplane moved backward between the holder's feet and simultaneously the engine started. As the man with the starter looked down to put the starter down, the airplane at a high idle moved back forward until it came to rest on the holder's ankles. The man starting the engine just saw the airplane moving and thought his friend had released the airplane so he tried to reach over the prop and grab the fuselage to stop the airplane. In the process, he got his forearm in the prop and got several deep cuts in his arm requiring a trip to the emergency room and several stitches. I reviewed the incident with an eye toward insuring it never occurred when I was holding an airplane. The best answer is to kneel or crouch down and hold the airplane with your hands, however many of us are older, heavier and lazier than others. What I do now is stand over the airplane with the leading edge of the stab against one ankle and then I place the other foot forward so that the trailing edge of the wing is against the shin. That way, the airplane cannot move back as the starter is applied and cannot move forward when it starts. If the airplane is big enough or is a biplane, I can stand with the stab against both ankles then bend at the waist and hold the canopy or top wing to stop the airplane from moving to the rear. Plane restraints are good but they do not stop the airplane from moving back when the starter is applied.

Try to make something good come from every accident--- learn what caused it then plan to prevent it and educate others at the same time. Fly Safe and Have Fun!  
**Safe Aeromodeling is No accidEnt (SANE)**

If you have comments or input for me, please direct it to:  
[JorLRice@aol.com](mailto:JorLRice@aol.com)

Used by permission of Jim Rice

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## **Preflight Inspection** by Ivan Cankov

Preflight training teaches the student how to inspect and prepare his model for flight. Like full-scale airplanes, a model airplane flight does not start with takeoff and end with landing. It starts with preflight inspection and ends with inspecting the airplane for any damage because of hard landings or suspicious behavior during flight. As are full-scale airplanes, our model airplanes are complex machines. To ensure a successful flight we must make sure that all components are in proper working order.

We are in this hobby mainly for the fun, but we all crash—we just don't know when. Even trainer models flown with an instructor using a buddy box will crash. The causes can be component failure or pilot error; yes, instructors err too.

To keep it fun we have to follow safety rules—both general safety rules as well as specific rules that apply to our model aircraft field. Students must learn to follow these rules to ensure that all pilots and spectators are safe and property damage, if any, is limited to our model airplanes only. Safety is of concern to everybody—all pilots at the field whether club members or not, flying or not, spectators, and people just passing by. All model-aircraft pilots should enforce the rules and make bystanders aware of potential hazard areas around the field.

Inspection of a new airplane starts with checking the integrity of the main glue joints and all screws. A student's model comes to the field already assembled so it's not possible to thoroughly check whether it is perfectly put together—whether it's scratch-built, built from a kit, ARF, or RTF. Despite this, an instructor is able to check the components that are likely to fail under stress during flight. These likely failures are the wing joint, tail feathers, control surfaces, landing gear, engine mount, and firewall.

Models are not considered airworthy if there are any problems found. Remember, you're a winner when you get your airplane(s) home in one piece even if you haven't flown them. Any problem(s) found need to be fixed and another inspection performed. Some of the problems can be fixed right at the field. Others require more time and the convenience of a workshop.

Test the wings by placing the center flat on your chest and pulling the wingtips with a reasonable force. Perform the test in both directions—top and bottom of the wing. The joint should not crack. Some ARF and RTF manuals state to use tape or small plastic straps and screws to hold the wing halves together. My advice is to glue the wing halves together using 30-minute epoxy unless the wing is specifically designed to use a different method, such as the NexSTAR wing.

Pulling the tail feathers up, down, and sideways should not move them. Again some ARFs and RTFs use studs glued in the fin and nuts (with plastic inserts to prevent them from unscrewing) to bolt the tail feathers to the fuselage. It's somewhat handy for transportation and storage but they are also more likely to fail, so my advice here is to glue them in place while still using the nuts.

Pulling the control surfaces—ailerons, elevator, and rudder (and flaps on some airplanes)—is the easiest way to check them. They should stay in place. Inspect the hinge gap; is it too big? If so, seal it. The easiest method I've found is to use regular Scotch tape. I always carry a roll in my flight box for repairs at the field (including repairing holes in the covering caused by landing in the weeds).

Check all linkages: there should be no play or slop. Play or slop in the linkages as well as big hinge gaps can cause flutter that can in turn destroy the wing, stabilizer, or fin to which it is attached. Although trainers have smaller control surfaces, moderate speeds of operation, and are not very prone to flutter, it can still happen—usually after the beginner pilot has soloed and starts performing aerobatic maneuvers with the trainer model at higher speeds. It happened to me; I lost my trainer due to aileron flutter.

Check all screws. I put Loctite on all metal-to-metal screws—from landing gear to fuselage. Don't tighten any engine screws if you are not familiar with the particular engine and its carburetor. Some of these should not be tight at all while others are torque-and-sequence sensitive.

All wood screws should be tight, too. Use thin cyanoacrylate glue to harden the holes. First, run the screw in the hole so it taps it, then remove the screw and put a drop of thin cyanoacrylate glue in the hole. Wait for the cyanoacrylate glue to fully cure and reassemble the part. These include, but are not limited to, servo screws—the ones

that hold the servos to the servo tray—hatches, tail landing gear (most high-wing trainers are not tail-draggers but use tricycle landing gear and don't have a tail wheel), main landing gear, etc.

Most RTFs come with already assembled engines and landing gear. Usually they are not properly tightened and sometimes they become unscrewed and fall in the box. The result is a model that arrives at the field with screws missing or not tightened. Beginners are not knowledgeable enough to notice or even know how many screws should be used, and are misled by the Ready-To-Fly advertisement of the product they just acquired.

Check the propeller. Is it the proper size for that particular airplane/engine combo? Is it suitable for training? Small diameter high-pitch propellers provide a lot of speed that is not needed for a trainer model. A typical propeller for a .40-.46 size engine on a trainer plane is 11 x 5.

Next check to see if the propeller is properly attached to the engine crankshaft. The propeller nut should be tight—very tight. The modern engines have hardened crankshafts and use hardened propeller nuts, so don't be afraid to tighten it. With an electric starter, from a safety and ease point of view, a spinner or spinner nut should be used. It should be tight, too. If the screws holding the spinner cone to the backplate are not tight, the cone will start to vibrate when applying the electric starter and shatter if it is a plastic one.

Check the center of gravity (CG) of the airplane with an empty tank. An improperly balanced airplane is hard to impossible to control. If done at the field and it's windy, try to find a place where the wind will not affect the airplane's attitude. Using your fingers is not the most precise method but it works. For most trainers the CG is located at the main spar. Check the CG with the fuel tank empty. When it's full, the CG is slightly forward. It's easier to fly a slightly nose-heavy airplane than a tail-heavy one. Most of the fuel is gone by the end of the flight, so the CG goes back to where it was set up with an empty tank.

Check the direction and the amount of control surface deflection. Do not exceed the manufacturer recommended values—they make the model more sensitive to the controls. That, combined with the inherent tendency of beginners to over control the airplane, will lead to aggravation from the student. He or she will be constantly fighting the airplane.

Do a thorough range check with the transmitter antenna fully collapsed and the engine running at idle, half, and full throttle. You can do it while breaking the engine in (if the engine is new). The servos should not twitch when you walk up to 30 paces (60 feet) away from the airplane. Twitching servos might be caused by low battery voltage for the receiver and/or transmitter pack. (Were they charged overnight?)

Break in the engine. ABC/ABN engines normally take one to two tanks before they can run reliably. Ringed engines take longer. Run the engines on the rich side of the needle valve, especially ringed engines. The airplane is ready to fly when the engine can idle and transition reliably.

Some engines (Evolution) are advertised as factory broken in. My advice is to take the time to run at least one tank of fuel through it. After that, if its performance satisfies an experienced pilot, the engine can take an airplane in the air. Keep in mind that the engine will continue to break in until it burns a gallon or two of fuel. How much depends on engine design. During that period, the engine will require some readjustment of its needles.

Leave the maiden flight to an experienced pilot. He will fly the airplane and trim it out. He will also readjust the linkages if necessary when the airplane is back on the ground so the trims can be recentered (if the transmitter is not a computer one).

Editors Note: This article states to use an 11 X 5 prop for a .40 to .46 engine. I prefer a 10 X 6 prop for a .40 engine and an 11 X 6 prop for a .46 engine. I suggest you do some experimenting using these as a starting point. There are many sources of suggested prop sizes to chose from.