

## In This Issue:

- Blue Ray Electric Pylon Racer
- E/xpo in the UNI Dome —workers needed
- Help Wanted — newsletter editor position vacant

### Up-Coming Club Events

Indoor Flying at Hudson High School **Dec 18**

Club Christmas Party **Dec 19**

Indoor Flying at Hudson High School **Jan 8**  
**Jan 22**

Club Meeting **Jan 26**

Indoor Flying at Hudson High School **Feb 5**  
**Feb 19**

E/xpo in the UNI Dome **Feb 20**  
**Feb 21**

Club Meeting **Feb 23**

Indoor Flying at Hudson High School **Mar 12**  
**Apr 9**  
**Apr 16**

Annual Club Dues are due & don't forget to renew AMA membership

**We're on the web!**

[www.bhrcp.org](http://www.bhrcp.org)

# BLACK HAWK R/C PILOTS

## Black Hawk R/C Pilots Newsletter

December 2009

### Black Hawk R/C Pilots Christmas Party

The party is December 19th at the Montage restaurant, 222 Main Street in downtown Cedar Falls. We'll be getting together in the upstairs lounge at 6PM for drinks and appetizers with dinner at 7PM. Last year the Christmas party was "snowed out". We're hoping for better weather this year.



If you are planning on attending and haven't signed up yet, please contact Neal Leeper at 266-2047 or [nleeper@cfu.net](mailto:nleeper@cfu.net) so we can have an accurate head count for the restaurant.



### Help Wanted — Newsletter Editor

Bob Glick has resigned as the club Newsletter Editor, so the position is "OPEN". If you're interested in the job as Newsletter Editor, please contact Neal Leeper at 266-2047 or [nleeper@cfu.net](mailto:nleeper@cfu.net). The next issue is due out before the January club meeting, so we need someone right away.



For info and registration for "E/xpo in the UNI Dome" on Feb 20-21, look on the Inter-

net at [www.expodome.org](http://www.expodome.org). Volunteers from the club are needed to help with the "E/xpo in the UNI Dome". This is the club's biggest event each year. Last year we had over 80 registered pilots and several hundred spectators. It takes a lot of work to put this event together. We need help with pilot registration, ticket sales, setup & teardown, prizes and running the events. We can use your help whenever you are available during the two days of the E/xpo. If you are available anytime on either day, contact Stan Sweet at 277-3584 or [sweet@cfu.net](mailto:sweet@cfu.net).

### Blue Ray Electric Pylon Racers

The E/xpo has a new event this year, Blue Ray Electric Pylon Racing! Several years ago, Cox Hobbies sponsored our indoor

## Minutes of the November 24, 2009 Club Meeting

The meeting was held at the Bridges Senior Center in Waterloo. Neal Leeper called the meeting to order at 7PM. The Minutes of the previous meeting were approved.

Hank Schafer, Treasurer, reported the savings and checking account balances. Hank was informed that one of the duties of the Treasurer is arranging to have the port-a-potty pumped out and winterized. (This was a big surprise to Hank!)

Under "Old Business" was discussion of the preparation for E/xpo in the UNI Dome. Stan Sweet had several Blue Ray racer kits available.

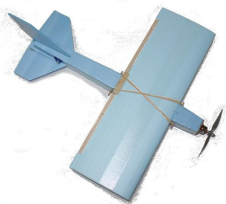
Neal Leeper reminded everyone of the Christmas Party plans and asked those planning on attending to either sign-up at the meeting or contact him by phone or email.

The club usually has four AMA sanctioned events throughout the year. The UNI Dome is already

sanctioned. We need CD volunteers to set dates and submit applications for sanctions for the other three events by the January club meeting.

The tractor has been sold and payment received. We will be buying a new mower when there is a special "pre-season" sale in February or March.

Respectfully Submitted,  
Neal Leeper



**Blue Ray Electric Pylon Racer**

*“The Black Hawk R/C Pilots BLUE RAY kit includes a CNC machined foam wing.”*

## Blue Ray Racer (continued)

pylon race with Cox Warbird aircraft. This was a fun event, but Cox dropped out of the business leaving us with no “standard class” airplane to run the race with.

Stan Sweet looked at several foamy electric pylon racers on the Internet and found a design that’s been used for outdoor electric pylon racing for several years. It’s a nifty little airplane that is inexpensive to build and flies well. It’s actually a great flying airplane that performs much better than the Cox Warbirds ever did. (Ask Wayne Boots how it performs.)

You can build the airplane from plans using 1/4” (6 mm) blue or pink construction foam board. This requires making a few balsa wing ribs and folding the foam board to make the wing. This isn’t hard to do, but Stan came up with an easier way. He cut the wings from 1” thick construction Styrofoam using his CNC machine and a foam cutting bow. (Yes, a CNC machined wing is really over-kill for a foamy, but it makes for a simple to build kit

and all the wings are identical!)



### Airfoil Shape

Once the wing was done, Stan went ahead and cut the rest of the parts too (including all the wood parts), so you can get a ready-to-build Blue Ray Racer kit from Stan. Not to be content with making the kits, Stan also build a couple of fixtures to aid in assembling the fuselage. You still need to supply a couple of things such as glue, motor, prop, ESC, radio and 3 mini-servos. With the current prices of motors, ESC’s and servos dropping to unbelievable levels (mini-servos are as low as \$5 each and the motor/ESC combo is \$20 on the Internet), you can build a ready-to-fly Blue Ray for a little over \$100.

There’s a complete description of the kit, assembly instructions and suggested equipment suppliers on the “E/xpo in the UNI Dome” web page. Go to [www.expodome.org](http://www.expodome.org) and click on the “Fun-Fly Events” tab at the top of the page.

The Blue Ray can be flown with either a 2S (7.4 volt) or 3S (11.1 volt) Li-Po battery. The pylon races at the E/xpo will be run with a 2S battery and an APC 7x5 thin electric propeller to keep the speed down inside the Dome. We’re keeping the option open for 3S races, but the Blue Ray requires some quick reflexes to fly with this much power in the UNI Dome.

When the snow melts and it gets warm again outside, we plan to hold Blue Ray pylon races at the club flying field. The outdoor rules will be a little different. We’ll allow 3S batteries and the propeller of your choice to be used. This gets the speed of these little airplanes up to 70 mph or faster.

## Full Wind in the UNI Dome

The rubber powered free-flight flyers have participated in the E/xpo in the past but have not had any time in the Dome just for free flight. This year a free flight event has been sanctioned and there will be 4 hours of free flight only flying. Free flight flyers can also participate in “E/xpo in the UNI Dome” as they have in the past, but there will be additional free flight only from 6PM to 8PM on Saturday night and 7AM to 9AM on Sunday morning. This will not reduce the flying time available to R/C flyers. During the free flight only times,

the free flight flyers will launch from the center of the UNI Dome floor where the ceiling is highest. This will allow for a “full wind” on the rubber powered aircraft.

The UNI Dome is an AMA Category IV Building with a ceiling over 30 meters (98’ 5”). Actual ceiling height is almost 50 meters (164’) at the center. Planned AMA Events Include:

- 201 – Hand Launch Stick
- 202 – Intermediate Stick
- 204 – Cabin
- 205 – Manhattan

- 206 – Easy B
- 207 – Penny plane
- 208 – Limited Penny plane
- 209 – Helicopter
- 210 – Ornithopter
- 211 – Autogiro
- 212 – Hand Launch Glider
- 213 – Kit Plan Scale
- 214 – Roll-on-Ground Stick
- 215 – Bostonian
- 216 – Experimental Autogiro
- 218 – Standard Class Catapult Glider
- 219 – Unlimited Class Catapult Glider
- 220 – Mini Stick
- 221 – Free Flight Electric Power
- 505 – Peanut Scale
- 507 – Flying Rubber Scale
- 519 – Power Scale