

Plane RAP

AMA Charter #128
The Western Soaring Capital
<http://www.1hss.org>



HAPPY NEW YEAR TO ALL FROM THE PREZ!!

Last year is over now, but not forgotten. A lot of things happened at the field and other places. May this year be better than ever. Don't take anything for granted. Fly high and keep your butt off the ground.

Your 2002 President.
Karl Hawley

Wanted: Mako junker to fly slope, any condition.
Wanted: 3m with RG15 wings for slope
Call Karl (714) 545-4733

CHRISTMAS PARTY

Ross and I hope everyone had a Merry Christmas and Happy New Year. We had a great time at the HSS Christmas party. The Hi-lite of the party was Santa (who was **so very happy**), with the very generous donation from Hobby People (servos, Crazy Max, Wind Cruiser, elec. speed controls, and 5 min and 30 min epoxy) everyone at the party went home with something.

Thank you Hobby People for your generous donations, they helped make the HSS Christmas party a great success.

We wish everyone a great 2002, and lots of thermals!

Ross and Maxine Thomas

CONTEST RESULTS OPEN DOUBLE ELIMINATION Sunday December 02, 2001

- 1st Flight** – 6 min. & 20 pt. landing
1st Place Mark Taylor - \$10 Gift certificate
2nd Place Tom Copp - \$5 Gift certificate
3rd Place Ross Thomas

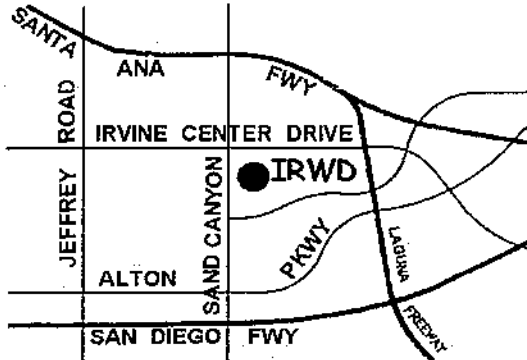
- Head to Head** – 10 min. & 20 pt. landing
1st Place Tom Copp \$50 Gift certificate
2nd Place Tom Vincent \$25 Gift certificate
3rd Place Mark Taylor

Plans are to have similar format with more prizes next Dec. 01, 2002 the first Sunday of Dec.. The rain date would be the 2nd Sunday.

NICK

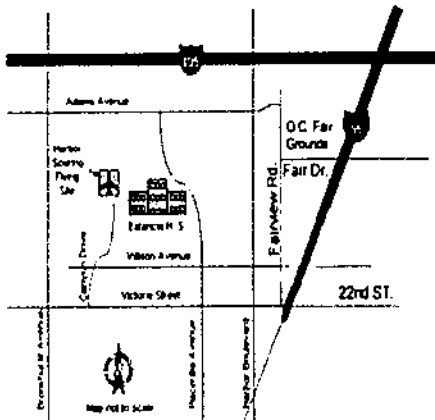


Meeting Location: Irvine
Water District located at 15600
 Sand Canyon Ave. 1/2 mile West
 of 5 fwy., south side of street.
 (note: Board Meetings are Held 30
 Minutes Before Club Meetings)



2 Note: The Irvine March Water District neither assumes or endorses the cause or activities of Organizations which use the District's meeting rooms, that are incompatible with its public interest.

Flying Site



**CLUB ACTIVITIES
 2002 SCHEDULE**

- Jan. 06th HSS Contest rain date 13th
- Jan. 08th HSS Meeting
- Jan. 13th SWSA Contest
- Jan 18th, 19th, 20th IMS Show
 AMA Convention in Pasadena)
- Feb. 03rd HSS Contest rain date 10th
- Feb. 6-9th SSA Annual Convention
 Ontario, Ca.
- Feb 12th HSS Meeting (Changed)
 (ALL Dates subject to change)

NICK'S DREAM VIEW

From the three major contests, Arizona, Pasadena, and Visalia, I would like to have 16 of the top World Class Flyers compete in an Open Double Elimination Contest. It could be scheduled the 1st Sunday of December at Harbor Soaring Society Field. Rain date on the 2nd Sunday.

NICK BUZOLICH





Projects

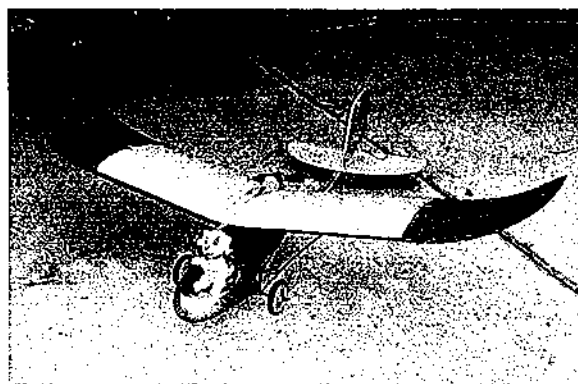
It seems that lately all of our projects have been electric powered. This is due in part to your Webmaster, Steve Hendry, developing an interest in boring holes in the sky rather than being content with the gracious majesty of a floating glider cruising silken skies.

Wingo

The Wingo is an all molded foam 43" span beginners model powered by a speed 400. The thing definitely gets an A+ for cute. Bob Barry brought one from Hobby Lobby to give to his Grandson at Christmas and needed a little assistance to get it completed in time. The airplane requires numerous small batches of 5 minutes epoxy to put together. I prefer to use canopy glue, it is easier to use and is much lighter and just as strong. If you can't read German just look at the pictures and English subtitles and you should not have any difficulty putting the thing together. The first flight was an ROG attempt, which resulted in a ground loop due to the left tire coming off the rim. It was then hand launched but after a minute or so I realized that the airplane was a bit tail heavy. Landing resulted in the right tire coming off the rims. A bead of clear silicon rubber fixed this problem. The battery pack was moved as far forward as it would go in the nose and it was launched again. Well, well, the thing thermals with the flight lasting over 30 minutes.

Bob Barry flew the Wingo and is so happy with it he will probably order another one for himself. It is a fun little airplane. You can order Wiley Coyote

for \$14.95 as a pilot figure or do as I did and pick up a small stuffed dog for ninety nine cents, slap a piece of Velcro on his butt and there you go.



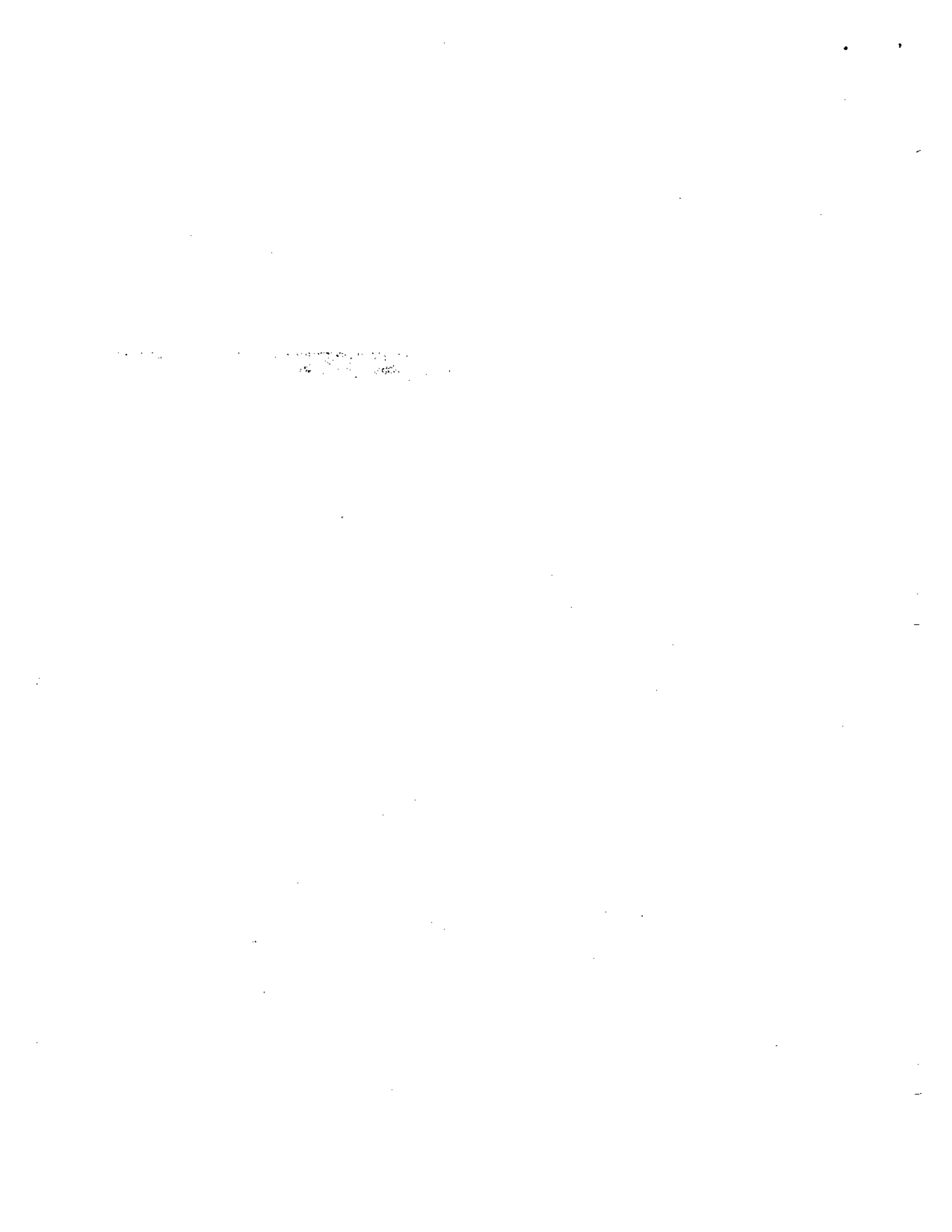
Bob Barry's Wingo

Extra 300 by Model Tech

This ARF airplane is sold by Hobby People and designed for gas power. This was another shared concept aircraft between Steve Hendry and myself. This sharing of time and resources works well for both of us and has been a lot of fun to boot.

The electric conversion requires cutting off the gas motor mount provisions from the firewall and clearing out the inside of the fuselage to accommodate the 14-cell battery pack.

(continued on page 04)



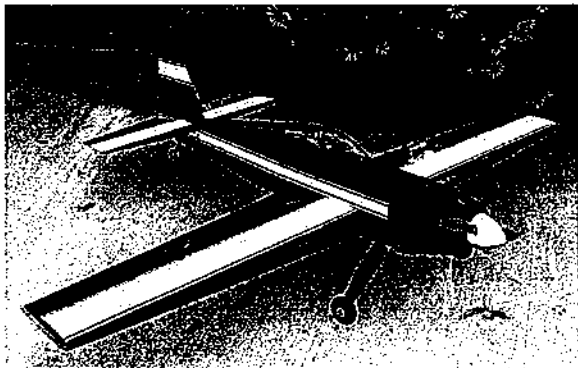
(continued from page 3)

The aluminum landing gear in the kit had to be replaced, as it was too weak and short to allow clearance for the larger prop required by the geared Astro 25. Other than that things are pretty much stock. The kit provides a molded pilot that has to be glued together and painted to look right. I cut him out and replaced him with a bust of that well known super hero "Batman" that I had been saving for just such an occasion. I used Goop to secure the pilot. He not only looks good inside of the canopy but also underneath provides a nice cavity to tuck all of the extra wiring out of the way.

I know of at least two other club members who have this kit so perhaps one of these days Steve and the Caped Crusader will have company at the field.



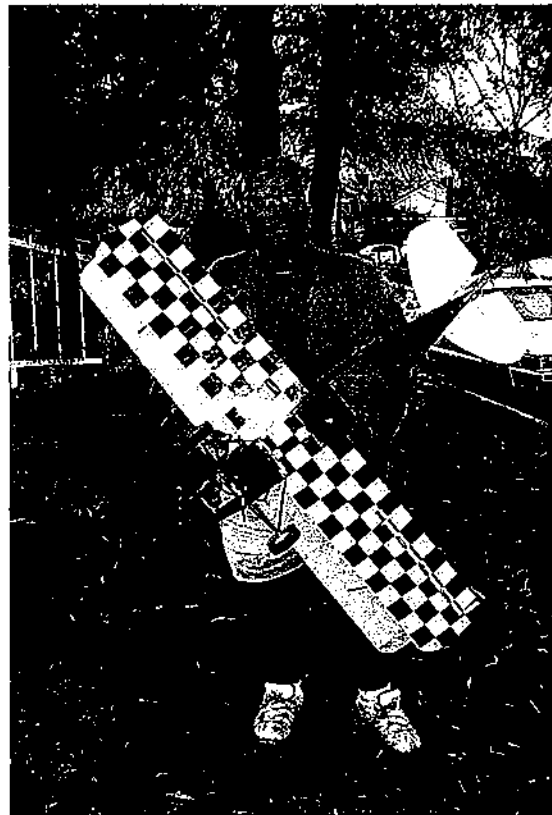
Steve Hendry and Batman



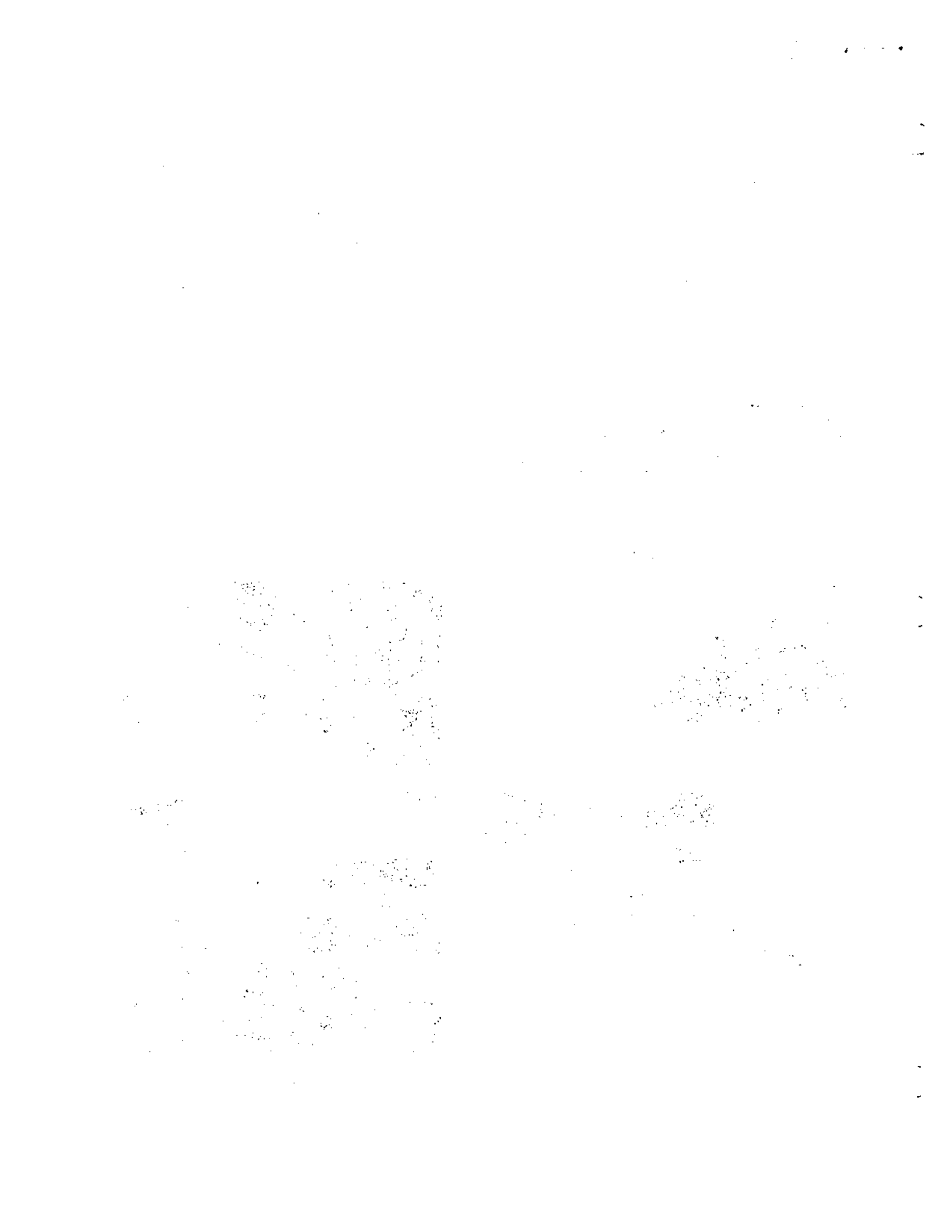
Batman

Fleet Bipe by Concept Models

A geared Astro 40 using 18 cells powers this 1/6 scale model. It is one of the few airplanes in my stable that I didn't build. I traded an Astro Viking with an Astro geared 05 motor for it to Ken Kehlet in Oklahoma City. I definitely got the better deal money wise but its all perspective since Ken is really happy with the Viking. Ken is a gas flyer and the Fleet just didn't fly long enough to suit him. Besides it takes up quite a bit of space and he had to keep moving it around his shop to get it out of the way. I kind of have the same problem with it but it is a great flyer and draws lots of attention from everyone who sees it. The only changes I made besides installing my radio in it was to add two inch square checkerboards to the bottom wing to enhance its visual appeal in the air. It makes a great show plane and something that appeals to the general public since most people can relate to a realistic model. Our thanks to King Kong for his promotion of the Bi-plane.



Larry Enger and Biplane



(article continued from page 04)

Vectron Blackhawk Flying Saucer

If you read S&E Modeler you will notice a review of this model in their December issue. This 13" diameter saucer sports 3-g geared electric motors and comes complete ready to fly. I certainly sparked my interest but I wanted to check it out before parting with the \$99 advertised price. I notice that it was on sale at Hobby People for \$69.95. I hate it when they do that; I was forced to buy one. The saucer requires lots of practice and gives your thumbs and your mind a good workout but is a blast to fly. If you can fly this thing you can fly anything. It is also a good sobriety indicator. The down side, it scares the hell out of the dog.

Things I've learned about electric flying

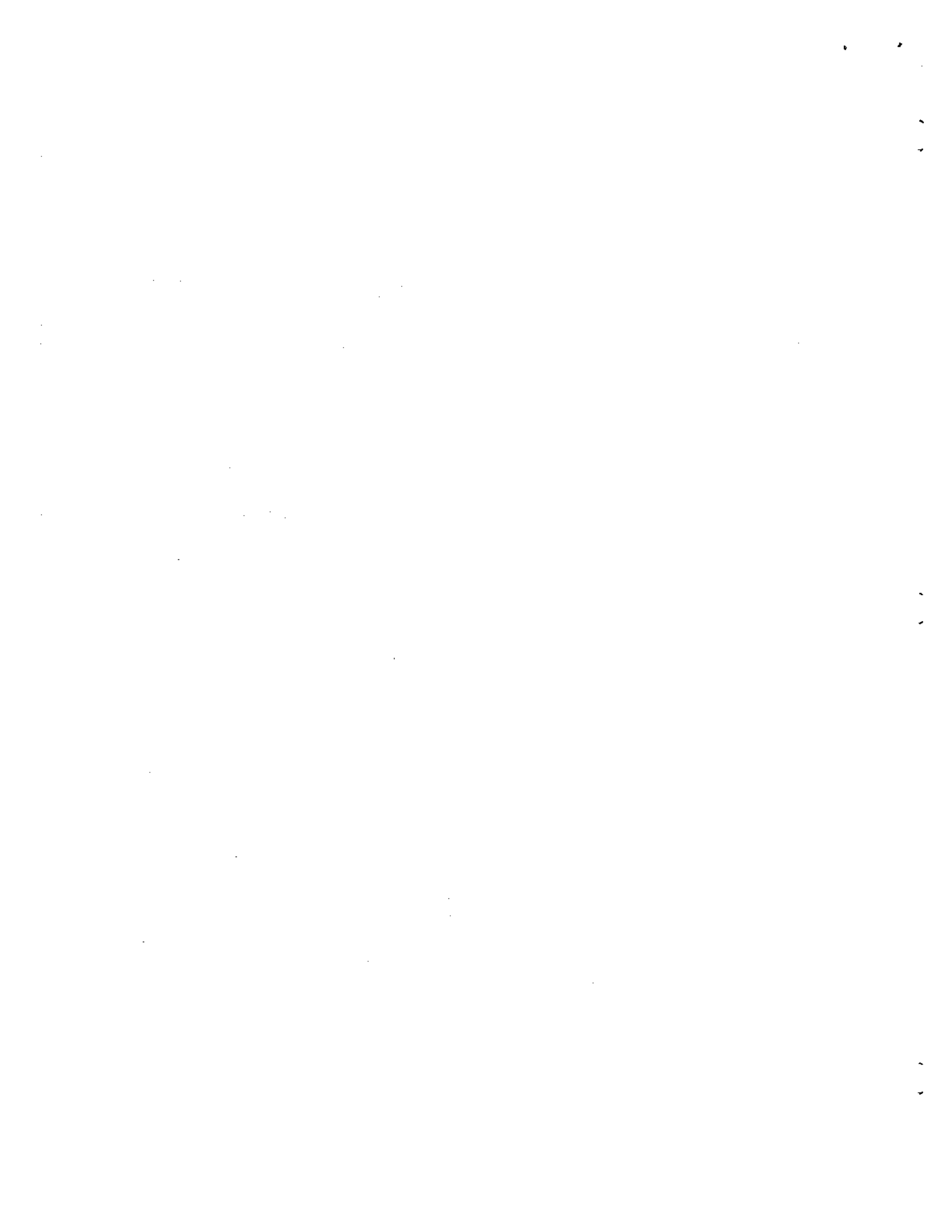
I am the first to admit that I know very little about electric stuff. Fortunately I have friends in low places that I can turn to. Tom Vincent knows his electric stuff and gives me the engineering perspective. I don't understand much of what Tom tells me. Bob Sliff is a longtime friend and he knows his electric stuff too. Bob tells me the philosophy of proper performance. I don't understand much of what Bob tells me either.

Steve Hendry knows nothing about the subject. Steve and I get along great.

I don't understand the calculations involved but I understand amperage. Amps are like fuel in your battery, the more you draw out the shorter motor run. If you decrease load then the amps go down and run time increases. We then come up with a theory that you want to use the smallest prop at which the airplane performs well. Sounds good but its only partially true as there is other predictors to consider. Experience based on experimentation is probably the best teacher. For example, Astro flight recommends a 25 motor with gear drive using 14 cells and swinging a 12X8 prop for a sport aerobatic airplane with about 450 square inches of wing area. We used this combination in the Sweetstick with good results. We tried going to an 11X7 prop based on the mentioned amp theory but the slightly longer flight didn't justify the decrease in performance. Back to the 12X8 until Hendry, giddy over having a steerable nose gear split the prop on a rock. Not having a backup prop handy I took the 13X8 prop off of my Fleet Bipe and put it on the Sweetstick. The airplane flew wonderfully with no drop-off in flight time and performance was the equal of the OS 40 gas powered job. We get a solid 6 minutes of flight time at full power and there is no oily mess to clean up after landing.

I am pretty much sold on geared drives for electric airplanes. The reason is that electric motors run better and are more efficient at high speeds while propellers are more efficient at lower speeds. The gears drives give you the best of both worlds.

(article continued on page 06)



(article continued from page 05)

Propeller selection is probably the most critical part of getting proper performance. Geared motors require a bigger prop with more pitch than a direct drive. Airplane type is also a consideration. For example, Bob Barry's Piper Cub was a hot rod using a 12X8 prop and cutting to half throttle was not the answer. I substituted a 14X4 prop and now the airplane is happy. It flies more at a scale speed yet has much more thrust for climbing and other maneuvers. I picked up a 15X5 to try, it may be better yet but I've yet to try it.

One of the downsides of electric flying besides charging time is the need to let things cool down after a flight. Your NiCad pack should be too hot to hold after a flight and you don't want to charge a hot pack. Now a warm pack is different since they charge better than a cold pack, which is why the second and subsequent runs of the day are usually longer and stronger. How much to cool it? When you can comfortably hold the thing put it on the charger. This is where the Sliff philosophy comes in; when you first start charging a warm pack it cools down. Yeah I know it gets hot again just as it peaks.

Your motor gets hot enough to blister your finger after a flight. As long as its not smoking this is okay, just don't slap another charged pack on it until it cools down some.

You now have the extent of everything I know about electric flight. We do have plenty of knowledgeable people in the club that can help you with your project if you have questions. Heck, I'll be right there with you.

Larry Enger

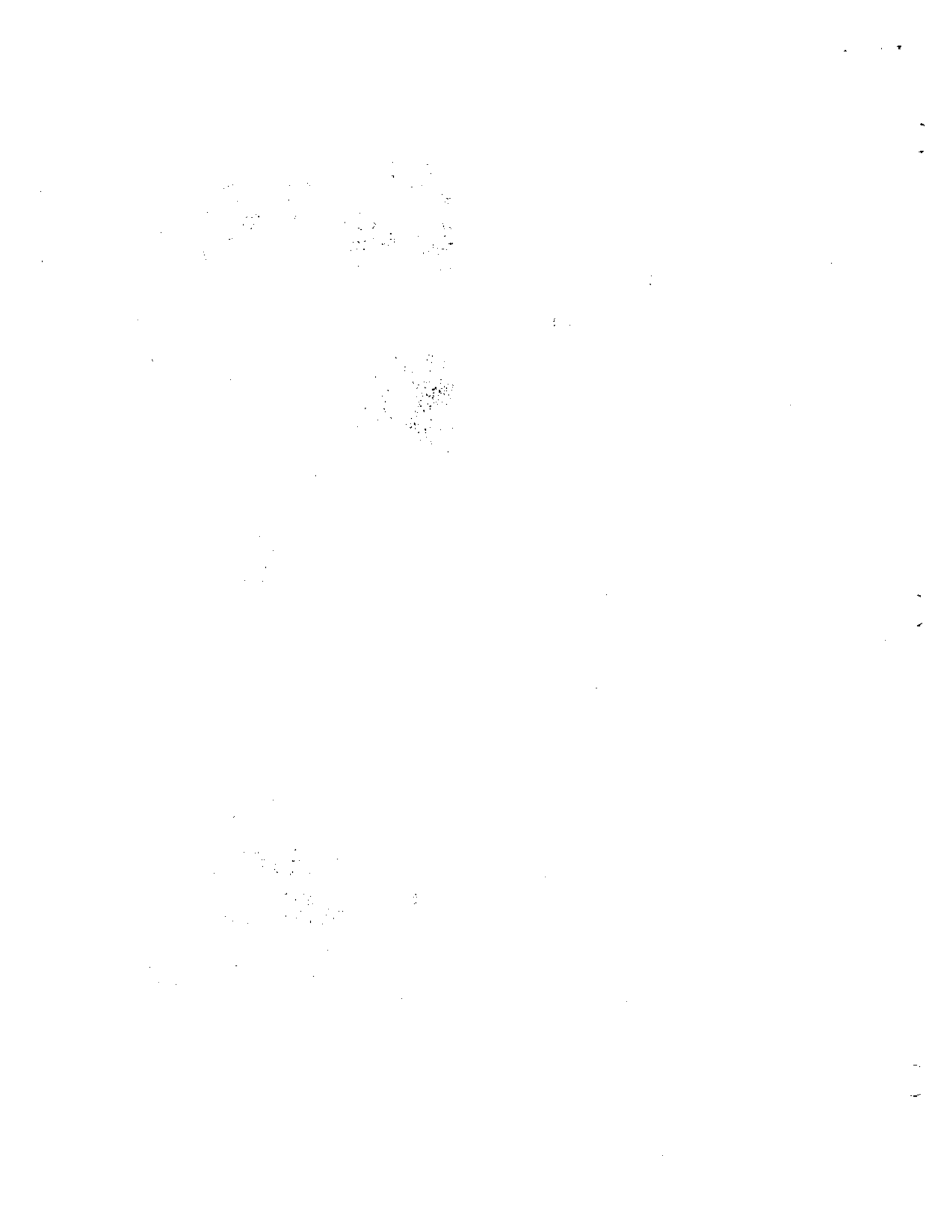


Bob Sliff with Electric Bodst



Biplane

REMEMBER, to see and print out the newsletter in color, go to HSS website!!!! <http://www.1hss.org>



NEW ERA of FIREFIGHTING

This week, NASA scientists introduced what they believe will be the next generation of firefighting technology. The Altus II unmanned robot plane has been repurposed to circle for up to 24 hours over wildfires, beaming images and data back to computers via satellite. Originally introduced in 1998 as a high-altitude, long-duration science aircraft as part of NASA's Environmental Research & Sensor Technology (ERAST) Program, Altus II gives fire crews a real-time view of fires that can burn over hundreds or thousands of acres. It can map dozens of fires in a day with no risk to a pilot. NASA developed and built the plane with General Atomics Aeronautical Systems of San Diego, CA. The plane, which is controlled by pilots on the ground, still requires some additional Federal Aviation Administration (FAA) approvals. According to NASA project scientist Steve Wegener, the plane sends thermal imagery through a satellite link and onto the Internet, where firefighters can access it. "They will have a real-time product to aid them in disaster management," he said. "We could also do floods, earthquakes, and pollution events." Visit <http://link.abpi.net/1.php?20010906A6> for more information.

(ARTICLE FROM TORREY PINES GULL WINGS)

SWSA Newsletter is On the Web!!

Some of you may have been receiving paper copies of the SWSA newsletter, now you may look at the newsletter on-line.

<http://members.aol.com/PopOffSwsa/Gateway.html>

The Word from Karl

We should give Warren Greer a big hand, he can launch his plane off the winch without any help, GREAT JOB WARREN!!

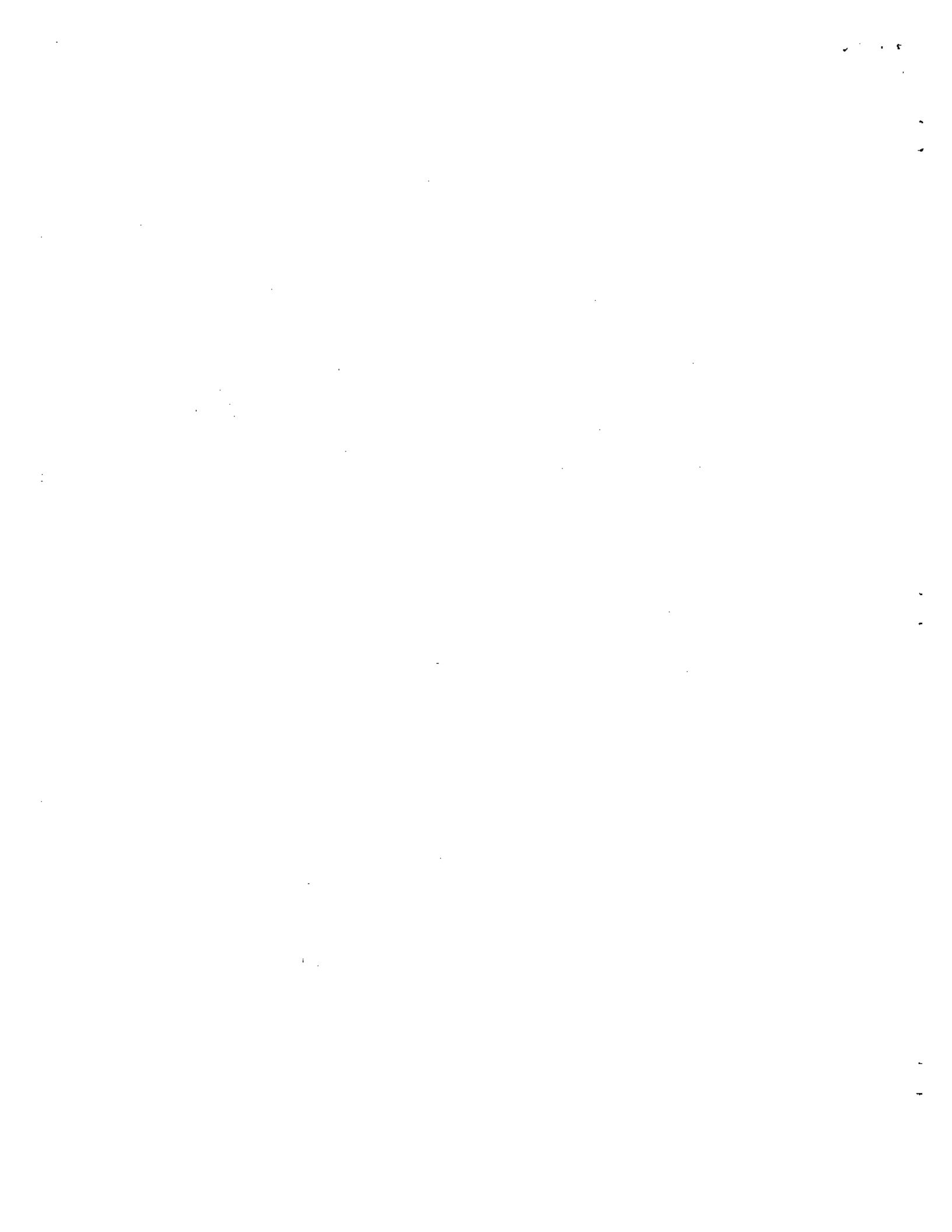
The field was a little muddy Sat. the 22nd from the rain, so remember to bring an extra pair of shoes just for a muddy day so you can get some flying in.

On the 23rd you could sky out under the big dark bottom clouds and the 24th the wind was out of the east so I called Larry Enger about slope flying in Elsinore, but he couldn't, OH WELL. So I went down to the field and Chris Adamczyk and I put up a winch and his son Casey hooked up in a big thermal just as the air which started coming out of the southwest. After that it was just a so so day because the air was moving a little too fast, so the thermal moved through fast too. So it's that time of the year to bring out your electric with you too, and yes, I know, it's electric time all the time for some of you, so have a good time.

I had a great time at the Christmas party. Dinner and Santa was there and up to his old self. LOOK OUT Santa's helpers, Santa was giving Bear Hugs, if that's what you want to call them!! Santa was "VERY HAPPY"!! We all had a very good time. If you missed it, there will be another one in December 2002, so mark your new calendar NOW, so you don't forget, it will be here before you know it.

I would like to recommend flying SC2 contest this year, you can fly all the other club's fields and make new friends.

Jax's Hobbies is the only hobby shop that is giving ua a 10% discount on most things, so make sure you renew your 2002 membership now. March will be last newsletter if you don't renew now!!



How High Am I? (from RCSE)

I have obtained a simple rough estimate of distance by using the little metal "button" on the end of the transmitter antenna as a reference dimension. (Altitude estimates need some information on angle to the plane as well.) I move the transmitter until the base of the transmitter is just below my chin. While keeping my eye on the plane, I move the antenna until the button is lined up between my eye and the plane and estimate the relative angular size of the button and the plane. The button is about the right size to be useful as a reference dimension. The formula I use is essentially the same as John Hazel's.

The first thing that I calculate and remember is the distance to the plane when the angular dimension of the button exactly matches the wingspan, i.e. the button moved on top of the plane just covers the plane. This reference distance D to the glider is given by

$$D = (\text{wingspan} / \text{button_diameter}) * \text{eye_to_button_distance}$$

For Example, if a 2-m (78 in.) plane is one "button wide", the button is 1/4 inch in diameter, and the antenna tip is 30 inches from your eye, then the calculation gives a reference distance D = 780 feet.

With this number in my head, I move the button on top of the plane and estimate the angular width of the wingspan in

"button_diameters". Then the actual distance of the glider is given by

$$\text{Distance_to_glider} = D / \text{button_diameters}$$

For example if the wingspan appears to be twice as wide as the button, my 2-m plane is 390 feet away. When my glider shrinks to about half a button, the plane is about 1600 feet away. This is about the limit for me to be able to control the plane.

What is nice is that you don't have to take your hands off the transmitter or your eyes off the plane. To obtain a handy reference distance, measure the size of your button (or glue on a button of useful size) and the distance from eye to antenna tip in the position you would normally hold the transmitter. Then calculate this reference distance. Of course, this height estimate can only be done if the tip of the antenna is not obscured by a frequency flag.

(nice article from Torrey Pines Gulls)



Editor playing Santa for his neighborhood with no padding!!



2002 Membership Application

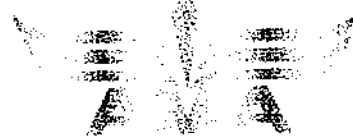
Harbor Soaring Society

AMA Chartered Club #128

P.O. Box 1673

Costa Mesa, CA 92628

The Oldest Chartered
Soaring Club
in the A.M.A.



Charter #128

I understand that by applying for full membership in the Harbor Soaring Society, I must be a current member of the AMA.

Name _____ Home ph. () _____

Address _____ Work ph. () _____

City _____ State _____ Zip _____

AMA # _____ (proof required to receive HSS membership card)

Date of birth _____

Primary R/C frequencies _____ LSF Level _____

Primary E-mail Address: _____ (required to qualify for \$5.00 discount)

HSS now provides a \$5.00 discount to members who allow us to send their newsletter by e-mail. (If you choose this option, you will not receive a printed newsletter).

The annual membership dues are:

- | | |
|--|----------------------------|
| 1) SENIOR (19 or Older July 1st) | \$20.00 |
| 2) SENIOR (19 or Older July 1st) w/e-mail discount | \$15.00 |
| 3) JUNIOR (19 or Under July 1st) | \$10.00 |
| 4) JUNIOR (19 or Under July 1st) w/e-mail discount | \$5.00 |
| 5) Special (Senior Members family) | \$5.00 |
| 6) HSS Name Tag only | \$5.00 |
| 7) HSS Board Member | No charge while in office. |

Applicants for SENIOR membership between July 1st and October 31st pay a reduced rate of \$10.00 (\$5.00 with e-mail discount). New applicants between November 1st and December 31st will pay the annual rate indicated above and such dues will make the new member paid in full for the following year.

A signature is required by all Harbor Soaring Society members, agreeing to comply with the current AMA Safety Code and the current HSS General Field Rules and Field Safety Rules.

The undersigned attests that: I will operate my model using only radio control frequencies currently allowed by the FCC. I understand that my failure to comply with the above restrictions will result in nullification of liability coverage for damages caused or claimed.

SIGNATURE _____ DATE _____ TOTAL DUES _____

OWED AND ATTACHED \$ _____

SIGNATURE OF CLUB OFFICER RECEIVING APPLICATION _____

"HSS Is Orange County R/C Soaring"

HSS. Club Information
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**Reminder: RENEW YOUR
MEMBERSHIP for 2002!!!!!!!!!!**

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