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# THE R/C FLYER

Volume 23, Issue 2 - The Newsletter of The Manned SpaceCraft Center Radio Control Club - February 1999

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Next Meeting - February 11, 1999 at 7:00pm - Clear Lake Park Bldg.

## From the Editors Desk

By: *Preston Hunt*

Well, it's that time of month again. To get the newsletter out that is. Anyway, I know your probably getting tired of hearing about this but back on the subject of electronic distribution of the newsletter. Here is a list of the people who have formally requested the newsletter via E-Mail as of 1/22/1999.

Clay Bare, Joe Parlanti, Kellan Goertemiller, Mike Laible, Mike Goza, Resha Hill, Robert Little, Troy Whitehurst, Preston Hunt & Cathryn Hunt.

Thanks Guy's and Gal's.

I am also sending it to David Hoffman, Don Fisher & Herman Burton who have not officially requested the E-Mail version yet.

It was discussed in the January meeting that you would not be cut from the snail mail list until you sent me verification that you wished to receive the electronic version. So I'm going to make this real easy for you. Hop on the web and go to [http://members.tripod.com/boom\\_strike](http://members.tripod.com/boom_strike) Select the "Newsletter Request" button, fill out the form and click the Submit button. See how easy and painless that is.

For those who do not wish to receive the newsletter via E-Mail, you will still receive it by way of snail-mail. But I can tell you right now, You don't know what you're going to be missing!

You should have also noticed the "volume-Issue" labels in the header. I derived the Volume from looking at a 1980 edition of the newsletter and then just counted from there. It may not be accurate but it should be close. ♦

## Using a Timer Can Improve Battery Life.

*Submitted By: Mark Wilson*

One of the failure modes in Ni-Cd cells is shorting. While many things can contribute to shorting one of the significant contributors is cadmium migration through the separator where it forms a conductive bridge, ultimately shorting the cell. Cadmium migration is a function of the time the charge current is flowing through the battery and less a function of the level of current. Therefore we have found that high pulses of charge current to maintain the charge state are better than a steady low rate (trickle) current. This is very difficult to quantify as their are many other factors contributing to the life equation but improvements in battery life of 10 to 20 percent by pulse charging vs trickle are not unrealistic. Therefore we have found the sustaining a pack at the fully charged state by way of pulsing the charge is better than an continuous trickle charge. Some charges employ this technique. You can do the essentially the same thing rather simply and at a very low cost. Simply connect your regular wall module charger that came with your system to an appliance timer. Intermatic makes a good unit for around \$5.00. Set the trigger pins on the timer so that it is on for 1 hour a day. When you return from a flying session turn the timer wheel so that the on off triggers come up in 14 to 16 hours. Then turn the timer knob to on. This will give your pack a full charge and then a sustaining charge for 1 hour a day. The battery can be left in this manner for a long time between flights and still be maintained at a fully charged state with minimal overcharge.

### *Battery Life Continued.*

If you only fly a couple of flights, you can just set the timer so that you get 6 or 8 hrs before you go into the 1 hr.day mode. If we assume a normal 2 hr flight time for a system and you only fly 20 minutes. Then the charge you need to return is 20/120 times 16 hours, or about 3 hours. It is good to know what your system consumes in the way of energy per minute of flight. This can be determined by first charging a pack and then discharging it on a cyclor to determine how much capacity it has - fully charged. Then recharge and go fly. Record your system on time and immediately discharge the pack when you return home. This will tell you how much capacity you have left. Lets say you fly for 40 minutes and when you discharge the pack you get 390 mAh. >From your initial discharge from a fully charge pack you got 585 mAh. This would mean that you discharged 195 mAh in the 40 minutes you flew or about 5 mAh/min. >From this you would know that your pack is good for 116 minutes of flight time.

The system usage will vary, depending on your flying style, size of the plane and number of servos used. ♦

## **January Meeting Minutes**

*By: Kellan Goertemiller*

The meeting was called to order at 7:30pm - 27 members were present.

### **Old Business**

Mike Liable is currently working on the pavilion issue with NASA. He stated it may not be a dead issue yet and should know where we stand by the February meeting. He will keep us updated. •

### **New Business**

Visitors: We had two visitors present at the meeting. Nole Springer and Brian Wilcorson. •

A suggestion was made to seal the runway rather than pave it. We will be contacting NASA to get their approval and then investigate the cost. •

A suggestion was made move the pit line up so runups are not so close to the cars. It was further stated that we need to measure the layout of the field and re-strip the pilot boxes and runway lines. A date was not set to do this but it should be sometime after we find out about the asphalt sealing. •

A motion made and approved to give fuel away with model of the month. •

A motion made and approved to hold meeting at 7:00pm rather than 7:30pm. •

A motion made and approved to not buy collapsible canopy until Mike Liable reported back on the status of the pavilion. •

Dave Hoffman presented the treasures report. The clubs current balance is \$3,310 •

Dave requested that a Last Notice to Renew your club dues be placed in next club newsletter. •

A motion made and approved the treasure's report. •

Mike Liable and Jeff Longmore were awarded badges to the mid-air club from a mid-air collision, badges presented by Mr. Preston Hunt. Jeff was not present to receive his badge. •

Joe Parlanti informed the members that in a meeting of the executive officers it was decided to offer club patches with the new emblem along with golf shirts, wind breakers & hats. Dave Hoffman is working on getting us pricing. The shirts, wind breakers and hats will be sold on commitment orders from club members. This offer will be made to club members as soon as we have all the details. *Editors Note:* An online order form will be placed on the Boom Strike web page and possibly on the club web page if it supports CGI scripting. We will keep you updated on the status of this. •

Joe Parlanti indicated that the club should host a meet and/or some fly ins this year. A suggestion was to have first meet a sport scale. •

Mike Goza stated that he could help put together a Helicopter fly in with 30 + pilots sometime this fall. •

Dave Hoffman also indicated that he was planning on hosting at least one Sail Plane event this year. Details to follow. •

A motion made and approved to set up an activities/external affairs committee. This committee would be responsible for assisting in the planning and coordination of fly in's, Balloon Fest activities & club entertainment. We will be soliciting volunteers for this committee at the February meeting. •

Suggestion made to have entertainment right soon as the meeting starts. •

Mike Liable and Brett Yourgan volunteered to be on the Fun Fly committee. We will be soliciting for additional volunteers at the February meeting. •

Bill Langdoc volunteered for refreshments next club meeting. •

Meeting was adjourned at 9:35pm ♦



Ken White presents his Big Stik 60 powered by a ST 61 and is slightly modified with flaps and added a front wheel brake, covered in COVERITE 21st CENTURY fabric and film and quotes “The fabric is wonderful to work with as the film seems to not stretch as well, and is quite thin” It has not been in the air and is controlled by a AIRTRONICS INFINITY, looks like a lot of fun!



Mike Laible presents his 5th design a SU-26MX it's currently powered by a converted RYOBI. Says he is soon to put a G-45 up front to fly the 14.5 pound bird. It's controlled by a FUTABA radio. It's 1/4 scale and what a fabulous covering job. It's covered in TOP FLITE MONOCOAT and is about true to real scheme as you can get. What a beauty it is!



Preston Hunt presents his huge gas JR ERGO Z230 powered by a G-23 and quotes “almost can hover hands off” what a impressive machine! And believe it or not, this heli won Model of the Month.

# ADVANCE40



## Virtually Ready to Fly (VRTF)

### Kit Review

By: Joe Parlanti

As some of you may know, I enjoy building as much, or more, than flying, so the thought of buying an ARF kit never really crossed my mind. In the last year, however, I've started too many projects, and found myself without a sport plane to fly. Armed with my fun-fly winnings, I ventured up to Texas Model Trends to see what kits were available. I was specifically looking for a .40 or .60 sport aircraft. There were 3 or 4 ARF candidates, but I settled on the Advance 40 by Hanger 9. I liked the lines, color scheme, and the fact that it was an all wood kit. It's covered in UltraCote, which should make covering repairs look consistent with the rest of the plane. The really nice part of the kit is that it includes everything, including; wheels and collars, spinner, fuel tank and tubing, pushrods and clevises, even 2 small tubes of epoxy. The only things you need to add are an engine, prop, and radio. The only tool needed is a Phillips screwdriver.

Upon opening the box, I was very impressed with the workmanship. Everything was well sanded and the covering was very well done. The color scheme using 4 colors; Red, blue, turquoise and white is like that shown in the picture at the top of this article. The engine mount, fuel tank, and pushrods are already in place. There are several bags of parts arranged relative to the installation sequence. There are 2 instruction books; the main one and an addendum.

The first thing to do is install the aileron servo. You have to be careful when starting the servo mounting screws so you don't pop the plywood doubler under the balsa loose. The next step is to join the wing halves. This is the only part of the assembly that requires any type of glue. Generously slather the 15-minute epoxy onto the spar joiner and push the wing together. There is 2 ¼ inches of dihedral in the wing. After the recommended overnight curing time, you are

instructed to put on 2 different colors of tape over the centerline seam of the wing. Here's where I made my only mistake. At the center of the leading edge is a pair of plywood pieces, formed from the center ribs, that mate into a hole in the fuselage. I had tried to be neat by cutting a rectangular hole into the red tape which wraps from the top trailing edge around to about 1/3 chord on the underside of the wing. I also trimmed it to provide clearance for the torque rods by the servo. The tape backing material is wider than the tape, so I could only get so close before I pulled it off and laid it down on the wing. I was a little off, so I decided to put it back down on the backing to retrim the hole. Well, the tape backing has a smooth side and a paper side, and as Murphy would have it, the backing was paper side up when I put the tape onto it. The tape was ruined. Now I have to find something else to use. I expect that I'll use some clear tape as most of it is hidden in the fuselage anyway.

Next comes mounting the servos in the fuselage. A plywood mount is already there and ready to accept the 3 servos. The neat part is that they are not screwed down, but are sandwiched by a plastic piece called a Shock-Loc™ radio tray that is screwed down to the plywood. The receiver and battery are foam taped and rubberbanded to this plastic piece also. Hooking up the linkages was a piece of cake. The elevator uses a Y-type pushrod.

The engine mount is an aluminum casting and has 2 plates that are screwed into it for capturing any engine from a .40 to a .48. No more drilling and tapping engine mount holes. I mounted my K&B .40, muffler, prop, and spinner. As mentioned before, the tank is already mounted, with 2 colors of pre-run fuel lines to distinguish the vent and pickup.

The rudder and elevator are screwed together and mounted to the fuselage with wing nuts. Loctite is supplied for these. Of course, all movable surfaces are pre-hinged. A piece of color coordinated tape is supplied to cover the access holes on the bottom of the fuselage.

The canopy is held on by 6 screws and then white tape is used to hide the screws. I did deviate a bit

here and tinted the canopy using the old Rit dye trick. The landing gear goes on like any other kit.

That's about it. I plan to fly the plane this weekend, so we'll see if it flies as well as it looks. All in all I was very pleased with the experience. Just for grins, I ran a little analysis to see what it would cost to build a comparable airplane. Here's what I found:

Great Planes Super Sportster 40	\$89.95
10 oz. tank	\$3.49
Fuel tubing	\$2.19
2 1/2" wheels	\$4.69
1" tailwheel	\$1.59
Wheel collars	\$2.38
2 1/2" Spinner	\$4.79
Latex foam rubber	\$3.49
2 rolls of Monokote	\$23.98
<b>Total</b>	<b>\$136.55</b>

I paid \$164.99 for the Advance 40 kit, which is only \$28.44 more than building one myself would have cost. This is rather disturbing to me, because I like to build so much. But it is nice to know that for just a little more than it costs to build a plane yourself, you could buy a VRTF like the Advance 40 and be in the air the next day.

Keep 'em Flying

Joe Parlanti ♦

## Rocket Club Event

Hopefully those of you that do not get the electronic version of the newsletter will get this in time. It was brought to my attention that the rocket club is hosting an event on February 6<sup>th</sup> & 7<sup>th</sup>. Tom Lanier of the rocket club sent me an email confirming this. Tom stated that everyone participating in that event has been informed to pay attention to the stop signs and traffic rules. I would also like to mention to anyone who ventures out to fly that weekend. Don't fly near or over the rocket area. It takes all of us to keep it safe.

## **Club Officers**

President	Joe Parlanti
Vice-President	Preston Hunt
Treasurer	Dave Hoffman
Secretary	Kellan Goertemiller

## **Instructors**

Don Fisher  
Mike Laible  
Mike Goza  
(Heli and Airplane)  
Jerry Hajek  
David Hoffman  
David Tadlock (Glider)

## ***The R/C Flyer***

### **EDITOR**

Preston Hunt

### **ELECTRONIC DISTRIBUTION**

Preston Hunt

### **ASSEMBLY, POSTING, DISTRIBUTION**

Bob Blaylock

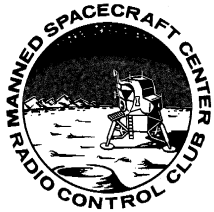
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Club Homepage: <http://www.phoenix.net/~mlaible/msc.html>

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