



Soaring News



Vol. 1 Issue 4

"Newsletter of the Orlando Buzzards R/C Soaring Society"

July 1996

CLUB OFFICERS

Rick Eckel, President
Don Cleveland, Vice President
Lewis Gray, Treasurer
Andy Harrell, Secretary

NEXT MEETING:

Aug 4th, Noon at Club Field
Sept 8th, Noon at Club Field

Corner

Rick Eckel

President's

off while he's not flying one of his superb unlimited machines! Here are my predictions: First place - John Claytor (if we can find him), Second place - John Masiello (if we let him hand launch), Third place - Jerri Ferguson ('cause he's been practicing a lot!), last place - Rick Eckel ('cause he couldn't buy a thermal over a raging smoke stack!) Enter early and avoid the rush! Come see how accurate my predictions are!

SPECIAL THANKS!!! I want to issue a special "thank-you" to Don Cleveland. His persistence in getting us to approve a trailer for mounting our launch equipment has benefitted the club immensely. The trailer-mounted winch and retriever have reduced equipment failures and maintenance, as well as making the equipment much more convenient to set up and operate. Having the winch and retriever up off the ground keeps both of them out of the sand, leading to much better operation. I believe that the trailer has done more for making our equipment reliable and available than everything else we have ever tried in the past! THANK YOU Don!!!

A NOTE FROM DON STACKHOUSE. I happened to contact Don Stackhouse (the D in DJ Acrotach aka Monarch HLG) via the Internet. He happens to live in Vandalia, Ohio where I grew up. During our correspondence, he mentioned a new 2 meter Monarch that they are on the verge of producing. Naturally, I invited him to come to Orlando and soar with us. If plans work out he'll be here in August. This is his description of the new Monarch 2-m (June 25): "The Monarch 2-m is an all-out hi-tech contestship with all glass and carbon fiber over foam core wings, glass fuselage with S-glass reinforcement, glass over foam "V" tail, 6-servo control setup (4 in the wings, 2 for the ruddervators), integral "skin" hinges with gap seals on all control surfaces, 2 piece wing with special cobalt alloy joiner rod (the wing is so thin that we had to use a 3/8" joiner, and at that diameter, even a Squire's rod isn't strong enough for "killer" winches, but this rod is - we sandbag tested the wing and joiner to the equivalent of over 220 lbs. load) and an infinitely adjustable to-whook. The fuselage is flat, but not as flat as our HLG fuselage, since the radio package is different and the aerodynamic reasons for doing it on the Monarch HLG's are less of a factor on the 2-meter. The wing planform is similar to the HLG, but the panel break is further inboard. The dihedral is much less than the HLG, especially outboard (very little polyhedral), but still more than most of the hi-tech 2-mtr flat wings. It's a very sleek airplane, but it doesn't have the delicate appearance of the hand launch. It looks like a Monarch on steroids, sleek but muscular, sort of an "Arnold Schwarzenegger" look. It is very fast, but can still thermal like its little brother. It handles like a pattern ship, and does very nice 4-point rolls. The kit is very complete, and there is very little work to do other than installing the radio. Right now it's at an introductory price of \$325, but once we get production fully going, we will probably raise that to about \$350. Deliveries haven't started yet (sorting out some production processes and waiting on some purchased (continued next page)

(Presidents Corner continued)

hardware to come in), but we're expecting to ship the first ones within a week or two from now. I'll try to bring one along if we can fit it in with all the camping gear. We look forward to seeing you in August." Sounds like a pretty nice ship. I'd better start saving my pennies!

Til next time - Rick "Hard Headed Thermals" Eckel

(Your friendly CD)



This month's safety tips concern the launch area. This area is often taken for granted, but it is the soaring equivalent of a gas engine with a screaming propeller (a disaster if constant vigilance is not maintained). After you read these suggestions, please pause a moment to reflect on how you can incorporate them into your flying routine.

Waiting to launch: Do not stand directly behind any winch. In particular, do not stand directly behind our trailer mounted winch. If a line break should occur the line could whip back towards the winch and anything in its path, including directly behind the winch, is in trouble. If you have seen any of the brake bails that have been twisted out of shape by a line break you know how much energy and force is contained in the line.

Launching: Keep your transmitter antenna, hat, and head away from the aircraft and winch line! One person recently crashed when the transmitter antenna caught in the tow line and was yanked from his hand and thrown sixty feet down field. Another person damaged his horizontal stab when it hit the back of his head upon release. Common sense must rule; hold the fuselage up and away from your head and do not release until you are satisfied with the attitude of the aircraft (nose and wings!), the line is taut, transmitter antenna is pointing away, and the "wobble" confirms you're ON. And don't toss the aircraft, let it go straight out/up so that it does not stall and loop back to crash into awaiting pilots.

Flying: Don't take the launch line area for granted. Standing within 40 feet of the line can be dangerous. You can't watch your plane and the retriever line at the same time! Allow for wind drift of the receiver line and for out-of-control aircraft on the winch line. Always think: "SAFETY FIRST".

Charging Winch and Retriever Batteries

By Rick Eckel

We have been steadily reorganizing the club battery situation. Recently we returned to 6 volt batteries for the retrievers and we have culled most of the bad 12 volt batteries from our inventory. The key philosophy that we have been pursuing is that club sport flying equipment and batteries will be maintained separately from equipment and batteries designated for contests.

The sport flying equipment will be maintained and available from the sheds at the flying field. Contest equipment will be maintained by various individual members at their homes. This approach is necessary because it is literally impossible to properly care for 10 to 12 batteries at the field with chargers in the shed. The batteries in the shed have proven to be subject to lack of rotation, inadequate charging and continuous high temperatures. As a practical matter it was simply not working to keep all the batteries in the shed.

Spare equipment also has a tendency to fall into disrepair when it is readily available at the field. Problems with winches and retrievers tend to go unreported and unrepaired until just before a contest. At that point it's a fire drill to get everything in order. I'm not trying to do any finger pointing here. I'm just acting on what I have observed over the past several years and trying to find a better way to accomplish our goals: convenient sport flying on weekends, and reliable equipment and batteries for contests.

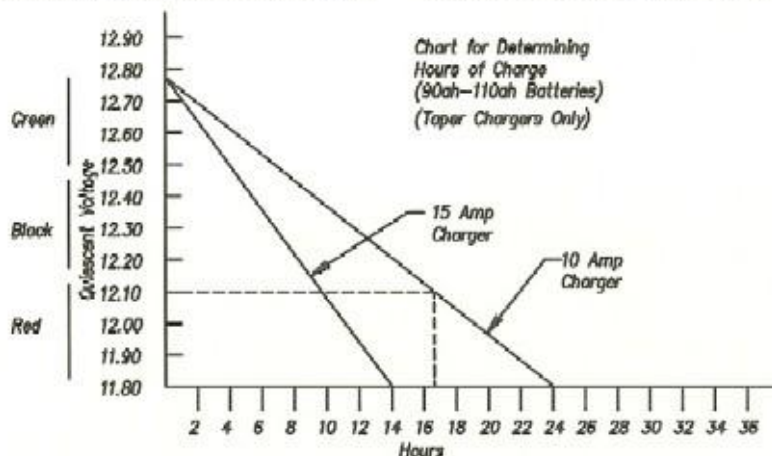
Our experiment with the use of 12 volt batteries on the retrievers taught us a couple of lessons. It was gratifying to see that our members pretty readily adapted to the higher retrieve rate of the 12 volt operation. But the long term use of the high speed retrieve seems to have caused a high rate of winch failure. Yes, winch failure! We had a rash of sheared bolts on the winches that we believe were caused by the retrieve speed. The higher speed retrieves spin the winches much faster and when the brakes hit the forces on the winches are much higher.

So now we are again in the situation of maintaining two different battery voltages. This time however we'll try to make it more convenient. To that end I purchased a 6 volt charger that is controlled by a timer. It shuts itself off after a specified time interval. I have never found an 'automatic' 6 volt charger (although they may be available) and I have decided that we would not want one in any case. Our 12 volt automatic chargers have been failing regularly. Out of 8 originally purchased over the last 12 months only 3 have (continued next page)

(Batteries continued)

survived (thus far). I believe that timer controlled chargers will be more reliable for our uses. They may sound like a throwback in technology but their simplicity should prove much more reliable.

The following chart shows typical charge times required for our 12 volt batteries based on either measured voltage or 'eye' indicator on the batteries. The charging



If you prefer doing the arithmetic rather than using the chart you can figure that the charger puts out, on average, one half its rated amps for the duration of the charge and that 20% of the charge is wasted. So, a 100 amp hour battery charged with a 10 amp charger will take 20 (100 divided by 5) hours plus 4 (20% of 20) hours or 24 hours to fully charge. If the battery is already half charged it will only require 12 hours of charging. Batteries that require substantially more time than this to charge are internally shorted or are sulfated up and are on their way to failure.

It occurs to me that there is a simpler and more direct way to choose the charging time. If we evaluate the current draw of the battery after about 5 minutes of charging we can tell approximately how badly depleted the battery is. If the battery is drawing 10+ amps after 5 minutes its a real dead puppy and will need a full charge. If it is drawing between 5 and 10 amps it is probably more like half depleted and will require 12 to 20 hours to recharge. If it is drawing between 3-5 amps a 10 hour charge will be enough and if its drawing between 1-3 amps it will be fine to charge it for 8 hours to completely top it off.

An even simpler rule is to charge any battery you have used for 12 hours. It is unlikely that a 10 amp taper charger can overcharge even a fully charged battery in 12 hours. And conversely, a dead battery will be more than half charged by a 10 amp charger in 12 hours. So its pretty safe to simply charge for 12 hours.

times are not critical. It is pretty difficult to overcharge our deep cycle batteries with a 10 amp taper charger.

Taper chargers put most of the energy back into a battery during the first half of the charging time. As the battery voltage increases the current flow into the battery decreases. This means that as the battery nears full charge the input current drops off, hence making it difficult to overcharge the battery.

To simplify the maintenance of our shed batteries even further I have purchased a 24 hr timer and set it up to turn on the chargers for 5 hours per day. (We can adjust this time as we gain experience.) The intent is to let the timer charge all connected batteries for 5 hours each day to get them up to full charge by the next weekend. The timer will not turn on until the wee hours of the morning so the shed is as cool as possible during charging. Hopefully this will preserve the chargers as well as the batteries.

Battery Maintenance Tips:

If a battery is fully charged, the charger current should fall off to less than 2 amps within about 10 minutes of turning the charger on.

Fill the battery water only high enough to cover the battery plates. Do not fill to the ring of the fill opening. (Doing so makes the batteries spit out a lot more acid during charging and makes them more spillable during handling.)

Store lead-acid batteries fully charged. Charge periodically (weekly) to maintain full charge. Batteries at the shed should be put on charge after every use. The chargers are on a timer that charges for 5 hours every day during nighttime hours. When you put batteries away after use activate the timer manually to initiate charging and check that everything is set up to work OK. (The timer will shut off the chargers later.)

(continued next page)

(Battery Tips continued)

The most common cause of poor winch or retriever power is corrosion on the battery terminals. The terminals should be cleaned before each connection. Use the wire brush in the tool box. One quick turn on each battery post and a quick turn inside each clamp will flake off the corrosion and allow a positive connection. (The corrosion is difficult to see but a close inspection shows up as a slightly greenish powder on the post or inside the terminal.)

Reminder: Don't place launch line and similar materials in the trailer. Battery gas and acid have recently damaged new reels of line. Avoid contact with batteries.



FSS#5. May 25/26 marked another great event at Kenny's World in Morrison. The weather was a little wet in the evening, but the days were simply beautiful. Kenny and his crew did an outstanding job, having mandatory launch groups, transmitter impound observer, and a spotter in the landing area! And the Bar-B-Q was GREAT! The annual FSS Meeting was held followed by an auction of what I believe is the last of the donated kits from Max Chernoff. Contest times were mixed and it was hard to find and maintain some thermals, others were boomers. There were some unusual incidents: a stuck

Future Contest Dates:

July 21	Annual, Orlando*—Gentle Lady's only CD: Rick Eckel
July 26–Aug 3	AMA Nationals, Muncie, Indiana (see Model Aviation Magazine for info)
Aug 3–4	FSS#7, West Palm—2 meter/Unlimited CD: Jim McCudden
Aug 30	Fun Fly, Morriston CD: Ken Goodwin

winch foot pedal switch ripped the wings off one aircraft and continued to drag it violently across the field; an aircraft using the same landing line slid right thru the tail of another resting on the line; and for some silly reason, people continued to turn on their transmitters when they didn't have the pin. (I think most shoot-downs were saved from disaster.) Rich Kiburis and Gerri Ferguson continue to dominate Sportsman Unlimited. (editor: I apologize; I did not obtain any contest results in time for printing, so refer to your FSS Newsletter.)

FSS#6. Weather and personal commitments precluded my trip to West Palm and I do not have the contest results. To the best of my knowledge, no one from the Buzzards made it either. If FSS newsletters are slow in coming, I will try to obtain results for next issue. Otherwise, I won't duplicate the news.

Mid-South NEWS FLASH!! Don Cleveland places first in Sportsman (our Expert) class at this premier national event in Tennessee. He has a beautiful trophy for his skill and a new JR Radio for his luck (won in drawing). Ofcourse he had the great morale support of John Masiello, who accompanied him on the trek. John was not so lucky though, having to deal with no-lift conditions everytime his group was called. Don is discussing a group effort next year with the renting of a motorhome. If interested, be sure to mark your calendar now. Congratulations Don!

Club Fun Flies. I will be concentrating on reporting local contests and club fun flics in future Contest News columns. Member comments have lead me to believe that this may be more desirable, since the FSS Newsletter tracks FSS contest information. If you have an opinion that differs, please contact me (the editor) and let me know what you want in YOUR Soaring News.

Aug 31–Sep 1	FSS#8, Morriston—2 meter/Unlimited CD: Ken Goodwin
Sep 21–22	FSS#9, Orlando—2 meter/Unlimited CD: Hank McDaniel
Oct 19–20	FSS#10, Morriston—2 meter/Unlimited CD: Bob Wargo
Nov 29–Dec 1	23rd Tangerine Nationals, Orlando CD: Ed White & Rick Eckel

ODDS-N-ENDS

DO YOU WANT TO RECEIVE THE FSS NEWSLETTER? Anyone wishing to receive the FSS Newsletter should contact Rich Kiburis at (home) 904-789-1421 or (work) 826-1280. He will collect all names and ensure that the FSS Newsletter Editor adds you to the mailing list. FSS has approved a policy of distributing the FREE Newsletter to anyone requesting it.

CLUB ROSTER UPDATE. The latest club roster is enclosed for your convenience. Please respect the privacy of your fellow members by not distributing for any other purpose than club business (which includes promoting the hobby). It is printed on the last two pages and can be easily removed for safe keeping. Soaring News is only mailed to the addresses on this roster.

IS YOUR ROSTER INFORMATION CORRECT? PLEASE review the enclosed roster for current and correct information. Any changes/updates should be forwarded to Terry Cusack or Andy Harrell. We are especially interested in obtaining accurate frequency-use data, what you fly most often, not your radios with two inches of dust on them. Thank you.

For Sale: Two Hi-Tec Focus 4 txer/rxer sets. One CH.19 (\$50) and one CH.11 (\$75). Contact Rob Rierson (407) 273-1127



**Give us a hand
Jot it down!**

**Your words
could appear
in SOARING NEWS!**

If you have news, safety issues, technical ideas, or equipment to sell, write it up and mail to: Terry Cusack, SOARING NEWS
1471 San Carlos Ave
Deltona, FL 32738-9771
or call: (904) 789-0323. I can accept disk copies in MS WORD, WORDPERFECT, WORDSTAR...or you-name-it. Watch for email address in near future.

TECH-TIPS

INTERNET INQUIRY: I've used regular Krylon, and Krylon appliance epoxy. I was not totally pleased with either product. The paint wouldn't "flow" very well. Also, it doesn't seem to resist scratches and chips like I'd hoped. What products and techniques can be recommended by the readership?

INTERNET ANSWER: Concerning your inquiry on fuselage paints, I have a suggestion. I've painted a few fuselages (hundreds, maybe) and the quality of the paint job is usually directly proportional to how much time and money you spend. I will tell you how to do a "stellar" paint job (that's light) or a quick & cheap (also light) paint job that will serve its purpose.

The first thing to remember about ANY paint job is that the preparation is 90% of the work. The better you prep...the better it'll look/last.

The easiest prep I've found is to sand with 320 until you have a uniform flatness to the gloss of the glass. Make sure there are no shiny spots. If you go through the cloth

anywhere, smooth it with a wipe-off application of thin CA & a "light hit" with the 320 (or 400) to fair it in.

I use White #7 Brand (green & white tin about \$2.00 at Ace Hardware) polishing compound to fill pinholes. A great idea (I believe it was Mark Levoe's originally) for a quick, easy and light method of filling the pinholes. For bigger voids use PPG spot putty. Since I'm usually too impatient to wait for the stuff to dry on its own, I put a space-heater in my guest bathroom for a mini autoclave (complete with vent fan!) and hang the parts in there for the stuff to dry. I leave the sanding dust from the last pass of sanding on the fuse, liberally but uniformly wipe-on the #7, hang-it up in the autoclave for 20 minutes, wipe it off and repeat the process two or three times. Then you're ready to paint.

STELLAR PAINT JOB

I recommend you go to a professional auto paint store for the good stuff. PPG makes great paint. PPG Acrylic (continued on next page)

(Tech Tips continued)

Urathane is the best I've found for easy application (using a gun) and best results for coverage, weight, and overall "killer gloss." If you choose this type of paint, you MUST use the right kind of primer. I prefer PPG white Epoxy primer or K&B epoxy primer.

It is important to mask and "rack" all parts for painting so you can safely set them down or hang them up for painting and curing. In addition, I also highly recommend the wearing of surgical gloves, respirator and protective clothing along with adequate ventilation. I usually construct a makeshift spray booth in my garage with plastic dropcloths and box fans to take fumes and overspray out under the door which I leave open about 18 inches.

If you do a good job priming, the paint will usually cover beautifully in one coat. However, the majority of the weight can be in the primer. I prefer to dust on a first coat. I mean really REALLY light, so you can see through it all over. If there are any obvious nasty pinhole spots that you want to eliminate, use the #7 method (don't worry, it's paintable!). After you're satisfied, shoot another light coat on and put in the autoclave for 10 minutes. If it needs another coat to cover dark areas, hit it lightly.

If you've done a good prep job, you can go right to color coating. If the surface has blemishes you want to remove, sand, fill, sand etc., until you are satisfied. spot prime the affected areas or the whole part, if necessary.

I usually final sand the primer with a used piece of 400 paper (wet) and then dry it, wipe it with a smear of thinner to remove finger oils, and finally tack rag it for lint.

The trick to good coverage with any paint is to have the air pressure right, the paint thinned properly for the temperature, and to FOLLOW A UNIFORM PATTERN laying each pass partially on the previous one to create a "wetline" as you move. Good lighting and the proper angle is essential to see the line clearly.

Note: the first pass (on the whole part, uniformly) should always be a "duster" from a greater distance than others. Immediately follow with a second (and hopefully final) pass that covers completely at a level of "wetness" that appears glossy but not so heavy that it will drip or sag. Let it cure in a dust-free environment with good ventilation. Again, the autoclave thing works for me. Having an understanding wife is a MUST to pull this off!

If you follow this method, you will get an incredibly good-looking light-weight paint job that will last for as long as your model; hopefully, a long time! I was able to paint an all-carbon Blackhawk and add only 3.2oz, painting the top surfaces and fuselage. The primer weighed 2.4oz., and the one coat of color was .8oz!

QUICK AND CHEAP PAINT JOB

I use spray-can lacquer for the "quick and dirty" paint jobs. Personally, I would NEVER use Krylon. It's too heavy and it doesn't last for &%\$#. If you're going to go spray-can, use lacquer. It is lighter, just as fast, and it is a LITTLE more durable.

Here in Southern Cal, Pep Boys sells "Plastikote Classic Lacquer" for about \$4 per can. Buy the color of your choice AND clear. As far as spray-can primers go, I have found that "Varsity" white primer is the best. It's light, white, and dries in a blink.

Use the same methods to prep as described above. Again, preparation is 90%...

For Hand-launchers, I dust-on a coat of primer and that's it. Just enough to help the color stick. Then dust two coats of color on right in a row. If they look good, let it cure for 20 minutes and shoot a light clear coat on it. I have found that clear lacquer is VERY light weight (.5 gr per coat on a HL fuse) so, I usually do two coats for nice gloss and a little more protection. Let cure and you're ready to roll (fly?).

from Steve Condon San Diego, California

HERE'S THAT SPACE AGAIN! USE IT OR LOSE IT. PLEASE CONTRIBUTE ARTICLES FOR THE BENEFIT OF ALL CLUB MEMBERS. Next issue: September 7.

ORLANDO BUZZARDS
Roster – July, 1996

Name/Address	Phone	AMA#/Freq
Baylor, Cyrus 181 S. Lake Triplett Dr. Casselberry 32707	407 699 8750	AMA#: 1252 Freq: 17,22,40
Burns, Robert C. 454 Yorkshire Dr. Oviedo 32765	407 366 4886	AMA#: 54188 Freq: 19
Chiodo, Dan 232 Buena Vista St. DeBary 32713	407 668-5040	AMA#: 325184 Freq: 16,18,46
Cleveland, Ben (WINTER) 235 Malaysia Island Leesburg 34788	904 589-1866	AMA#: Freq:
Cleveland, Ben (SUMMER) 708 Country Club Dr. Tullahoma, TN 37388	615 455-9422	AMA#: Freq:
Cleveland, Don (VP) 1515 Cuthill Way Casselberry 32707	407 696-7516 (w) 281 2366	AMA#: 515879 Freq: 33,44
Cusack, Terry 1471 San Carlos Ave. Deltona 32738	904 789 0323 (w) 407 826 7449	AMA#: 270567 Freq: 19,50,52
Eckel, Richard (PRES) 696 Brown Bear Court Winter Springs 32708	407 365-9757 (w) 366 8852	AMA#: 467949 Freq: 24,28
Ferguson, Jerre K. 4511 Pageant Way Orlando 32808	407 295-0956 (w) 356-5810	AMA#: 61646 Freq: 35 FCC#: W2YRQ
Galloway, Tom 2173 Mohawk Trail Maitland 32751	407 628 5040	AMA#: 28469 Freq: 18,50
Gallucci, Gerard J. 703 Carrigan Ave Oviedo 32837	407 365-5202	AMA#: 459929 Freq:

Name/Address	Phone	AMA#/Freq
Gray, Lewis (TREAS) 685 Bear Creek Court Winter Springs 32708	407 365-6766 (w) 281 3174	AMA#: 58222 Freq: 18,52,33
Harrell, Andy (SEC) 4449 Harbour Lights Ct. Orlando 32817	407 679 5294	AMA#: 275113 Freq: 29,27
Hunt, Scott 931 Ridge Spring Ct. Apopka 32712	407 880-1056 (w) 898-5599	AMA#: 457338 Freq: 19,45
Jansson, Ed 2837 Sweet Springs St. Deltona 32738	904 789-8755	AMA#: 89047 Freq: 6
Kiburis, Rich 1928 N. Nemo Dr. Deltona 32725	904 789-1421 (w) 407 826-1280	AMA#: Freq: 31
Lawton, Jack B. 2357 Whispering Maple Dr Orlando 32837	407 240-8875	AMA#: 507200 Freq: 27
LeLong, Henry 5430 Durant Drive Port Orange 32127-5309	904 767-1773	AMA#: 10276 Freq: 56,53,5 FCC#: K2SGB
Masiello, John 1440 Carrington Court Winter Springs 32708	407 366-8918	AMA#: 542232 Freq: 13,29
McDaniel, Hank 1218 Roxboro Road Longwood 32750	407 831-3688	AMA#: 395930 Freq: 13, 34
Moore, Bud 3670 Periwinkle Dr. Winter Park 32792	407 671 5005	AMA#: 1599 Freq: 6,48,56 FCC#: KC4JAF
O'Reilly, Dennis 231 Lake Griffen Circle Casselberry 32707	407 834-7146	AMA#: pending Freq:
Parks, Dwight 842 Kentucky Woods Ln., East Orlando 32824	407 857 0368 (w) 859-0909	AMA#: 451718 Freq: 60