

August 1996

The News Letter of the *Manned Space Center Radio Control Club*

President's Corner

Bill Landoc

Thank you Don Fisher for bringing your computer and Dave Brown R/C simulator to the July club meeting. We all enjoyed seeing what the simulation program could do, and getting a little hands on time. Several folks commented on the ability to use the variable settings to be able to check out the flying qualities of a new airplanes before taking it to the field, and learning new maneuvers.

The club has approved a change to our long standing flying field rules to allow members to drive out and park by the pit area. The one month trial proved to be very successful, with many favorable comments offered. The trail also served to emphasis the need to be particularly careful while driving in and out of the pit area. The club sign at the entrance to the antenna range will soon be revised to reflect the new policy. To minimize congestion, and ensure safety by having only people who are familiar with the procedures and risks, we will continue to ask that visitor park at Building 14 and walk out. This is a significant policy change and should make flying more enjoyable for everyone.

Planning continues for the Club's participation in this year's Ballunar Festival on August 24 and 25. We plan to put on a 20-25 minute flight demonstration, four total, morning and afternoon on

Saturday and Sunday. The plan is to include helicopters, sailplanes, and airplanes in the demonstration. After looking at the festival set up, using the tramway behind the Saturn 5 with a right hand traffic pattern appears to be the best way for us to fly. We also are planning to have a booth where we can exhibit and explain our hobby to the public. We will need a large numbers of club member to man the booth all day both days. At the next club meeting we will start a sign up sheet. Please give serious consideration to providing an hour or two of time on one of the two days. This event will be the best opportunity we have had in along time to showcase our hobby, and to reach a large number of potential new members.

We had an extensive review at the last meeting of the draft Member's Handbook. (As a cost savings we decided not to send a copy to everyone until we had the review and had a final version.) There are several recommended changes to the cub constitution and bylaws that need to be voted on. By the club rules these changes are to be distributed in writing prior to the vote. So enclosed in this newsletter is a sheet of the proposed changes. Please review these proposed changes and come to the next meeting prepared to discuss and vote on them. Following that vote, a finalized handbook will be prepared and made available to all club members. Mike Laible is to be commended for taking the initiative and the time to put the handbook together. See you at the August meeting, and fly often and fly safely.

Words From The VP

Michael Laible

Another month has gone by. By the time everyone reads this it will be the first week of August, Summer will be more than 1/2 over. Good thing we have all year flying.

My visit to the AMA flying site in Muncie and the Nationals (NATS) turned out to be outstanding. My Dad and I arrived on Friday, July 12th. At this time the RC Scale Static judging was taking place. The first round of flights was on Saturday morning. So on Friday we strolled around the museum and watched other events. Some of the other events on Friday were the CL Aerobatics finals, CL Speed, CL Combat, and RC Pylon.

The CL Aerobatics was really exciting to watch. It is truly an art form. It is amazing what the pilots can do with these aircraft. I noticed a lot of youth participants. CL speed was completely something different. Those poor chaps started the engines and held on for dear life. Round and round!!! Speaking of round and round, I got to observe the 1/2A combat. Now this made me dizzy. I do not know how these guys kept the lines untangled. It sounded and looked like a bunch of gnats swirling around. All and all I am glad I got to see some of the CL events. This brought back some very fond memories.

The RC Scale event was really something to see. The craftsmanship is outstanding. Robert Karlson entered a F4F Wildcat with Scale landing gear. He told me that he worked on the gears for three weeks, full time. It commented that he had over 2100 hours invested in the aircraft. He had scaled exhaust and the exhaust areas were natural discolored from the exhaust. It looked like the real thing. Just too many models to write about. One in particular I would like to highlight is Garland Hamilton's T33B turbojet. This was amazing, very quiet and realistic sounding. You will have to see

the video to believe it. I got numerous slides and about an hour of video. I plan to present these at the next meeting on August 8th. See you there !!

Now back to local news. Well, the Sea Fury got airborne. It was the best of days and the worse of days. Do I need say more. The aircraft was (is) one of the best WW II models I have flown (I only have two, Hee Hee). It is a dream to fly. A lot easier than the P-51. Now for the bad news. My Rx battery failed in flight. Not good, but it ends on a good note. It was amazing, the aircraft flew for about 1-2 minutes by itself. It went straight up, straight down, pulled out of the dive, leveled out heading to Seabrook, returned, leveled out into a circle pattern and slowly descended into the weeds at full throttle. Minor wing damage and fuselage damage. The airplane God's blessed me on this day. I did get about 6 flights on the aircraft. The flight characteristics were outstanding. Everything seemed to be designed correctly. The major differences from scale were the incidence angle and washout. By the August meeting she will be back in one piece and ready to fly.

Well, I guess I have gabbed enough. See you at the next meeting. Remember --- "The difference between a good day and a bad day is your attitude"..

tl

NiCads

by Dan Garvey

I am Dan Garvey, Charles County Windrifiers (CCW) chief instructor. Starting this year, I am going to try to use this format to pass along some info on a variety of topics. Hopefully, you will find some of it useful, or just nice to know.

To start off, we'll talk about the care and feeding of NiCADS. Every day your battery pack sits on the shelf or in the plane, it is discharging at about 1% of rated capacity a day. So in about 2 or 3 months, the voltage could drop to about ZERO volts, and that is

bad news.

A NICAD cell with low voltage can develop internal shorts or opens rendering the pac useless. Another problem called "MEMORY" is caused by partial charging and the pac will no longer charge to full capacity but rather some level below full. So even if you charge overnight, you still don't get a full charge. One other problem is battery corrosion. This is the stuff that looks sort of green or crystal-like around the ends. This can interfere with electrical contact and should be cleaned off.

There is an easy solution! Keep your pacs charged at least once a month Winter and Summer for at least a minimum of 14 hours.

To check the capacity of the pac and to remove the memory effect, you need to cycle them. There are two ways to do this. First, you could get yourself one of the HI-TECH battery cyclers like the DIGIPACE. Secondly, you can build a LO TECH system consisting of a resistor and a voltmeter.

The idea behind cycling is to discharge the pac at a fixed rate (around 200-300 milliamps/hour) and measure the time it takes for the pac to drop to 1.1 volt per cell. That's 4.4v for a 4.8v RX pac, and 8.5v for a 9.6v TX pac. To come up with the capacity of your pac, you take the time in minutes multiplied by the discharge current per minute. Don't worry. Be happy. It gets worse!

Here is an example. A fully charged RX pac is rated at 500 ma. We put it on the tester and start discharging the pac and we start our time.

If we use a 22 ohm for the load, we should draw about 220ma/hr. or 3.7ma/minute (220/60=3.7). With the voltmeter attached to the battery, we watch...and watch...and watch.

When the meter shows 4.4 volts, we stop the timing and take the pac off discharge.

Now, to find the capacity, multiply the time in

minutes times the milliamp draw per minute.

Say the time was 95 minutes. Therefore, 95 times 3.7 (our draw per minute) equals 352 milliamp capacity (95 x 3.7 = 352). That is a marginal pac since it is only 70% of rate capacity (352ma/5) (1% of rated capacity equals pac percentage). So the thing to do would be to recharge for 14 hours and cycle the pac again. It should get better. Don't forget to charge the pac again after you're done!

The figure below shows the set up for the LO TECH cycler. The resistor used is a 22 Ohm 5 watt type For the RX pacs, this will give a draw of about 200ma or 3.7ma/min. For the TX pac, use a 47 Ohm 5 watt type.

This will give a 210ma or 3.5 ma/min discharge rate. USE CAUTION, AS THE RESISTORS WILL GET HOT!!!

By taking a little care of those NICADS, they should last quite a few years. If you have any questions, bring them to the meeting or give me a call. I'll be glad to help.

Til next month, KEEP CHARGING!

The R/C Flyer

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Articles and want ads can be submitted to Mike Laible at 474-1255, on 5.25" or 3.5" floppies in ASCII or Microsoft Word, E-mail at mlaible@phoenix.net, or hard copy formats can be sent to: 2823 Sea Ledge, Seabrook, Texas 77586. Club Homepage at "http://www.phoenix.net/~mlaible/msc.html"



"Support Your R/C Flyer"

Minutes from the July 1996 Meeting

Don Fisher -Secretary

Meeting called to order by Bill Langdoc at 7:30 PM.

The minutes from the previous meeting were read and accepted with modifications.



Old Business

- Mary Caldwell gave a brief description of her J3 Cub flight. Needless to say Mary was excited.
- Approved to change rules to drive out to the flying field. See attached rule changes.
- Ballunar Festival was discussed. Volunteers will be needed for pilots and booth personnel, Dave Hoffman volunteered to be announcer.
- Reviewed Membership packet and inputs were given.

New Business

- The Door Prize for the month of July was won by Resha Hill
- No new fuel needed.

Members Tip of the Month

None reported.

Treasurer's Report

Treasurer's report presented and approved.

Model of the Month

Ray Randolh presented Resha's Sport-Air 40 by Northeast Aerodynamics, Inc.



Program

Don Fisher brought in the Dave Brown flight simulator for everyone to try.

Refreshments

Refreshments for the month of August will be provided by Jeff Longmore.

**Next Meeting on Thursday
August 8th 7:30 PM
Clear Lake Park Building**



1996 MSC/RCC Calendar

Date	Event	Date	Event
Aug 4	Scale Championships, Arlington TX	Sept 20-22	Bomber Field B-17 Gathering, Monaville TX
Aug 8	Club Meeting	Sept 28-29	Midwest T-6, Dick Scobee Field
Aug 17-18	Southwind Big Bird, Pearland TX	Sept 28	Club Fun Fly Annual BBQ
Aug 23-25	Ballunar Festival, JSC	Oct 10	Club Meeting, Elections
Sept 7-8	All Scale Flyin, Hockley, TX <i>wasley</i>	Oct 12-13	Prop Nuts Big Bird Fly IN
Sept 12	Club Meeting, Nominations	Nov 14	Club Auction
Sept 14-15	Texas City Big Bird, Texas City, TX	Dec 12	Club Christmas Party

Below you will find the proposed changes to the club rules. Bold designates added items and strike throughs represent deleted items. Please review and submit changes at August meeting.

CONSTITUTION

Article 3. The Officers of this organization shall consist of a President, a Vice President/**President Elect**, a Secretary, and a Treasurer, who shall serve for a period of one year, or until a successor is elected. **The President shall have served previously as a club officer.** The officer shall be elected by secret ballot annually by and from the members of the organization.

BY LAWS

Article 1. Section 1. The membership of this organization shall be composed of hobbyists interested in the radio control of model airplanes **and helicopters.**

Article 2. Section 1. Each member shall be required to possess a valid radio license when required by the Federal Communications Commission (FCC) for ownership and operation of RF equipment utilized in pursuit of the hobby. **Only radio's currently approved by the Academy of Model Aeronautics (AMA) and the FCC.**

SAFETY LAWS

FREQUENCY CONTROL

c) Airplane must have pilot/owner name **and address** or AMA number, ~~address and phone number~~ on or in the plane for identification in case airplane gets beyond the control of transmitter or pilot

4. Taxing, Take-off & Landing

a) **Two** major Directional Flight Lines (DFL) are provided to accommodate the shift in wind direction (See Figures 2 and 3, ~~DFL 1, 2, and 3~~). ~~In addition, two of the DFLs (No. 2 and 3) have two options to accommodate the sun direction called Optional Flight Lines (OFL).~~

b) Depending upon the direction of the wind and the location of the sun, ~~a combination of DFL and OFL will determine~~ the "Current Flying Session" (CFS) flight line **will be determined.** Pit area and visitor/spectator area will be relative to the CFS flight line. The CFS will be agreed upon by the flyers present on the field.

c) No taxing out of the ~~Current Flying Session designated~~ pit area under the aircraft's own power. Planes should be hand controlled until outside the pit area. **NO TAKE OFFS FROM THE PIT AREA.**

d) All powered ~~ROG~~ take-offs (T/O) and landings (LDG) will be done within the CFS flight line areas.

e) Pilots will fly from within the marked boxes behind the ~~the "Pilot Line 1" or from the~~ designated "Pilot Line" ~~associated with each CFS/OFL combination.~~ **markers boxes** are spaced at 25 feet apart to aid in maintaining a safe distance between Pilots/Transmitters.

6. When the MSC R/C Club and the NASA/Houston National Rocket Club are using the JSC antenna

range at the same time, ~~on the first and third Saturdays of each month from 9:00 AM until 2:00 PM, the following safety rules will be followed:~~

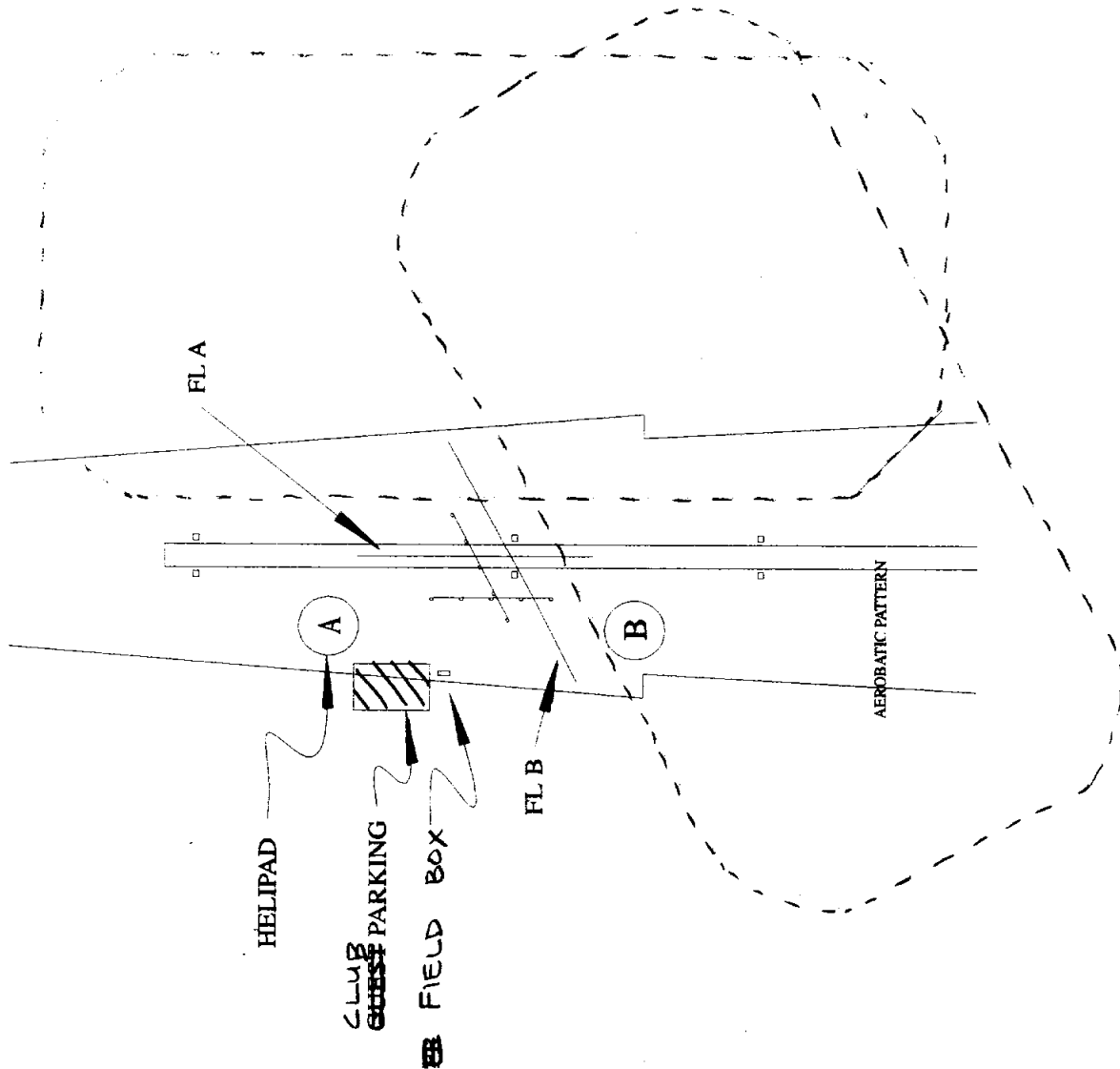
PROCEDURE RULES

- 4. ~~Automobiles are not permitted on the flying field except as stated in the Safety rules, Item 6 pertaining to rocket club members. In special cases the club officers may authorize automobiles to drive out to the flying site to load and unload.~~

Club members may park behind Building 14 and walk out, or drive with caution to the field parking area at the edge of the pavement near the white field box. When RC aircraft are flying, all vehicles and pedestrian traffic will wait at the stop sign to be motioned on. Particular care must be taken when driving in and out of the pit area.

LAYOUT

Figure 2



Fuel for Sale

Jim Brock		334-1715
John Campo		488-7748
Tas Crowson		474-9531
Don Fisher	474-4942(H)	483-2157(W)
Wayne Green		484-3151
Don White		488-1024

Club Officers

President	Bill Langdoc	482-2369
Vice-President	Mike Laible	474-1255
Treasurer	Dave Hoffman	476-5206
Secretary	Don Fisher	474-4942

Instructors

John Campo		488-7748
Charles Copeland		474-1195
Paul Ellis	480-3839(H)	488-9878(W)
Don Fisher	474-4942(H)	483-2157(W)
Mike Goza		
(Heli and Airplane)	554-4016(H)	483-4696(W)
Wayne Green (Heli)		484-3151
Jerry Hajek	486-4722(H)	246-4312(W)
David Hoffman	476-5206(H)	479-1945(W)
David Tadlock (Glider)		481-5227

The R/C Flyer



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