



THE R/C FLYER

Volume 24, Issue 7

July 2000

Next Meeting – July 13, 2000 at 7:00pm - Clear Lake Park Bldg.

The President's Corner

By: Preston Hunt.

This seems very strange, Not having to edit the newsletter that is. Thanks, Charles. So what have I been up to with all this free time? Same old Same old... FLYING!!!! I'm actually getting fairly comfortable with my Raptor and doing stuff like flips, rolls, loops and a few other unrecognizable acrobatics. I've even started dabbling with some inverted hovering. So what? So where is this going? Well, I must say that I owe all of this newfound bravery to none other than my simulator. In today's RC world, I believe a simulator is one of the best investments you can make. Yes I know, it's not exactly like the real model but it's close enough to teach you which way to push or pull the stick when your aircraft is in some disorientating flight path aimed in the direction of the ground. It's bad enough with an airplane that you can usually correct with the motions of one stick but try a helicopter. This is a different beast when it's racing towards the ground. You have to worry about both sticks; the wrong move on either one and it will probably still hit the ground. The simulator has taught me to get the rotor blades somewhere in the direction of up then push both sticks forward and then fine tune the flight path after it's moving forward. So guess what maneuver I practice on my simulator? Crash Recovery is probably the most practiced set of maneuvers I do. I purposely place my aircraft into an out of control situation and then try to recover before it hits the ground. This is the best practice you can do. Because of this, I never panic with the real bird in the air even if I lose orientation. I have practiced this so many times; I just instinctively fly out of it given enough altitude for the recovery maneuver. I've always told people that landing was a maneuver that needed to be practiced. Well so is Crash Recovery. Practiced on a simulator, it may very well save your aircraft someday.

Fun Fly Status

By Michael Laible

The June event was cancelled due to the lack of a pilot. Oh, well, I guess one pilot was present, the CD. Anyway, the June events will be carried over to the July Fun Fly. The July 15 events will be as follows: 1)Climb and Glide with Spot Landing, 2)Blind Flight, and 3)Dice Roll.

Remember, Gift certificate awards at every event.
See Ya



In The Pits

By Michael Laible

I think it is time to review the club Safety Rules. The field is very active with multi disciplines utilizing the field. If something is not done, we will loose members, create hard feelings or worse case have a serious accident. These are hard choices and will require some work. The words underlined are taken directly from the safety rules and are pertinent to this discussion.

Item 1:

Existing rules for non-compliance of the safety rules:

NON-COMPLIANCE OF SAFETY RULES

Any JSC/RCC member who does not comply with or follow the safety procedure rules stated here in will be subject to having his/her club field pass pulled for two months, or club membership terminated, depending on severity or reoccurrence of the infraction.

Well to me this leaves a lot of questions. Who can take the badge? What recourse does a member have to reinstate his badge? What offense needs to take place? Just some food for thought. At a minimum it should state who can take the badge and what recourse the individual has.

Item 2:

Below you will find some safety rules I feel are not being followed.

4. Taxing, Take-off & Landing
 - a) Two major Directional.....
 - b) Depending upon
 - c) No taxing out of the 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 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 designated "Pilot Line". The Pilot boxes are spaced at 25 feet apart to aid in maintaining a safe distance between Pilots/Transmitters.
 - f) Non-powered sailplanes
 - g) Helicopters will be flown from designated "HELIPAD" areas "A" and "B" opposite of the CFS flight lines in use. Flying will be no closer than 40 feet of the nearest person in the CFS pit or spectator area. Flying over CFS pit and spectator areas prohibited.
 - h) Helicopter rotor blades will be engaged only on runway or designated helipad - not in pit area or taxi way.

THESE ARE THE RULES. I enjoy this club. I have put numerous hours into this club as for as training, promotion and countless efforts not self-serving (like many members do). However, it really is becoming bothersome to know that confrontations may exist. It takes the fun out of flying. The rules must be followed. I can not sit by and let this continue (What, me sit and do nothing). So lets understand the rules and follow them.

In addition, I do feel improvements need to made in the rules. We need to draft another safety rule that handles pattern-flying helicopters. My feelings are either fly the pattern from a pilots box or fly a pattern NOT in the fixed wing CFS. In other words, mutually exclusive heli and fixed wing patterns. This is not out of control. Other clubs have the same rules, I have checked!!!! Lets draft some wording and approve it, PRONTO!!!! One can not be on the active runway, PERIOD!!!!

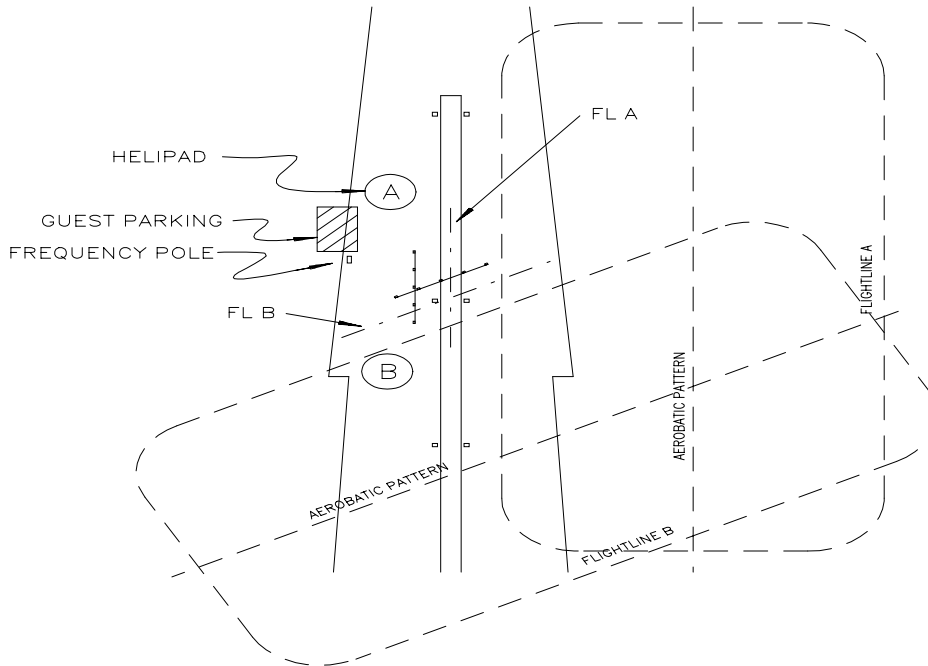
Item 3:

Like it or not, below you will find the field layout and current definitions. It is plainly spelled out where the hovering areas are, the pattern area, etc. THESE ARE THE RULES. If it is not liked, change it and lets get a majority vote to change it!!!!!!!

5. Current Flight Session (CFS): Pit & Spectator Areas
 - a) The "PIT" area is where all pilots and equipment are kept, including field boxes, planes, helpers, coolers, chairs, etc. deemed necessary by a pilot.
 - b) The "PIT" is an area starting at a minimum of 20 feet from behind the CFS "Pilot Line" and extending a minimum of 15 feet to the spectator area. The pits will extend in either direction parallel to the CFS pilot line as required to accommodate the number of flyers or need to avoid any standing water.
 - c) If a plane's engine quits on the runway just prior to an attempted take-off, the pilot and/or helper should make every attempt to clear the plane from the runway and return to the pits to resolve the problem.
 - d) The "Spectator" area is located behind the CFS Pit area for a distance of 15 feet and running parallel to the Pit area. Visitors and spectators should be directed to this area as quickly as possible to maximize the safety of the people and minimize the disruption of the flying activities.

I do believe that we need to review these issues. If anyone agrees with me please contact your officers so the safety rules can be worked out.

Figure showing field layout



June 8, 2000 Meeting Minutes

Well, some of us must have been having a senior moment and failed to take minutes. There were however two items discussed at the meeting worth mentioning. There was a discussion concerning the club's current fuel purchasing agreement with the Hobby Center and the needs of some club members not being covered. Changes to the current agreement as well as other fuel purchase options are being considered.

A proposal was made for the club to provide "buddy boxes" and trainer cords for use by student pilots. If you have a buddy box and/or trainer cord that you would be willing to give/loan to the club, let Preston know.

The Hoffman Report

By Dave Hoffman, JSCRCC Treasurer

Income: \$85 in dues; expenses \$12 for refreshments, leaving \$73 to be added to the beginning balance of \$4,768 which left us with \$4,841 coming into the meeting on June 8, 2000.

Model of the Month

By Michael Laible

The models were plentiful for the June meeting. The club had three entries for the MOM. The first model was Walt Luekes' low wing SkyVista. Walt still claims that it can not be built in three hours as advertised. Anyway, this is Walt's second and expects to have a lot of fun with it. The first one met an early demise from - - - well, let's say dumb thumbs.

The second model was Ron Madsons' electric yard flyer. This plane is really nice looking and is an ARF. I can't remember the exact weight but I want to say 10-12 ounces.

The last model was Clay Bares' Morris hobbies giant Sudakoi. This plane is powered by a US 41 cc engine and Clay said has unlimited vertical. The pilot of this plane is a cutout picture of Clay himself. Clays' model won model of the month.



Clay's model won Model of the Month

Product Review: 16" Dremel Scroll Saw Model 1680

By: Donald White

Street Price \$230.00

Cheers: Combination of features; Top mounted controls, Large cutting table, Work light, Dust blower, Safety guard for on-off switch.

Jeers: Blade storage compartment is difficult to insert or extract blades.

How many times do you get something right? Well, Dremel has come up with a scroll saw that includes the features we are all looking for and got them right. Large work table, variable speed, work light, dust blower and vacuum attachment. That about says it all but let me tell you a bit more. The design has all the controls on top where you can see them, with a separate on-off switch for the light, saw motor and a knob for the speed control. The saw on-off has guards and a hole for a lock in case little fingers are likely to start pressing buttons. I use a key ring.

The 1.4 amp motor has plenty of power for our applications, easily cutting wood 1 inch thick wood. Speed is variable from 500 to 1600 strokes/minute. With the speed control up-top where it is easy to see. Blade changing is a snap, no tools required with nicely machined blade holders able to utilize 5-inch scroll saw blades with or without pins. A door on the side of the saw opens to expose the lower blade holder. The blade tension lever is easy to use and intuitive, winding it one way to tighten the blade the other to loosen tension on the blade.

The 10 watt light is positioned to shed light on your work and is adjustable, easy to replace and only 10 watts, so it doesn't get too hot. The replacement lamps are available anywhere. Another feature to help us see is the "duster" that blows the sawdust away from the line and is also adjustable. The tube reminds me of a backbone with individual "joints" that allows you to point it exactly where you want it, and get this; it stays in place - wow. The saw has a 1 1/4" adapter for a vacuum attachment to keep sawdust from piling up on your work bench.

A very handy allen wrench and extra blade storage compartment is located on the side of the saw and here is where I was disappointed with the saw design, the blade storage is located below the tool storage and is difficult to see the blades. The compartment is difficult to put saw blades into and a little harder to take them out for use. I'm putting my extra blades into a soda straw and then insert the straw into the compartment. This seems to work just fine. I use three different color straws, red for pin type blades, white for plain end blades, clear straw for used blades. The saw comes with 11 extra blades, three with pins and 8 assorted blades for various applications including a spiral blade which cuts in any direction.

The large work surface is nicely finished and is large enough to support large "big bird" ribs and formers. The work table tilts either side and with detents every 15 degrees. Three detents and you are at 45 degrees either side without looking. There is a scale marked off in 1 degree increments.

The blade foot guard is very easy to adjust and because it's easy users with use it. It can be set at any tension on or just above the work piece. The motor is protected by a built in circuit breaker.

The Instruction book is written in lots of languages. Happily it is divided into sections the English section is about 20 pages in length.

The option of being able to use both the plain and pin type blades is a welcome feature. There are many different kind of blades to choose from but one type that interested me was the reverse tooth blade. Several are provided. This blade has teeth pointed up instead of down at the lower end, so the blade cuts on the up and down stroke giving a smooth, splinter free cut on both sides of the work, neat!

If you are looking for a scroll saw, Dremel has a sure winner with this tool, it has a reasonable price, and a two year warrantee that makes it a very good value. It is a quality saw that you will proud to have in your shop.



Dremel Scroll Saw

War Bird Fly-In

By Charlie Teixeira

For those of you that didn't make it to the War Bird Fly-In at Bomber Field the weekend of June 3-4 missed a great show. I was really impressed by the performance and realistic sound of a turbine powered F-15 (what is the lotto jackpot up to this week?). Also saw for the first time the 1/10 scale model of the Russian TU-95 Bear. It weighs in at 90 lbs., has 28 servos and 16 batteries! The plane was not flown. In spite of the heat and the number of planes that went down the first couple of hours, it was well worth the drive.



1/10 Scale Russian TU-95

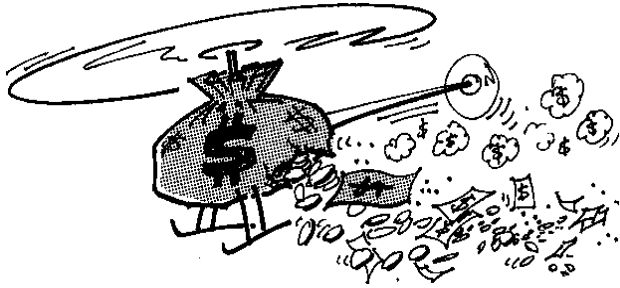
BoomStrike's World

A monthly rotary rambling By Preston Hunt

Ok, here's a though one. I've committed to writing an entire page. If memory serves me right, last month I was going over some of the control functions of a model helicopter so I will continue along those lines, at least for a while. As you saw last time, the cyclic commands to the main rotors are basically transmitted through flybar mixing and it all happens 90 degrees after we tell it to. And when we give it collective pitch it happens to both blades in the same amount hence the name collective. Collective pitch is how we tell the helicopter to climb or descend. Throttle modulation is also going on at the same time. What we are ideally trying to do is climb or descend without changing the RPM of the engine. As we add pitch, we add throttle. This requires a careful relationship between the pitch curve and the throttle curve. Another thing to factor in is that with the increases or decrease in pitch, we have a change in torque. In other words the helicopter will try and pivot one-way or the other about the main rotor axis with the change in torque. There are two ways we deal with this. One is the gyro that will make tail rotor pitch correction to counter the torque. The other thing we can do is plug in Revo mixing. This is a throttle to rudder mix. As we add throttle, we add tail rotor pitch. If you are using a Heading hold gyro it gets a little more complicated because we can not use Revo mixing unless our radio has the capability of turning off Revo mixing when we switch to heading hold mode. I will go into this later.

As I mentioned above, we use a gyro to help deal with yaw. What we are actually doing is placing a gyro between the rudder servo and the receiver. The gyro senses the yaw rate of the helicopter and counters with opposite rudder command. There are all kinds of gyros but there are basically 3 types. Single Rate, Duel Rate & Heading Hold (HH). Single Rate gyros can either be mechanical or piezo. The same is true for Duel Rate gyros. Piezo gyros are newer and draw far less current than mechanical gyros. In the HH or Lock as it is sometimes called, you will only see the piezo gyro. In the HH department you can go from basic HH gyros to "simply amazing what this thing can do" gyros and the price range goes along the same lines. HH gyros start at around a \$100.00 and go to over \$300.00. The more you spend the more features you get and hopefully a better holding gyro.

Ok, I think we have covered all the basic functions that go on to make a helicopter controllable.



When choosing your first helicopter you first have to decide which type of chopper you wish to purchase, a collective pitch machine, or a non-collective pitch machine. If you are starting the R/C hobby from scratch and must buy everything, I would strongly suggest the collective pitch machine. Although it is a bit more expensive initially, it is by far the more versatile of the two and will help you enjoy more advanced stages of the hobby after you have learned to fly. You will also find the learning process easier with a collective pitch machine.

On the other hand, if you are already into radio controlled aircraft and have an aircraft radio, and an aircraft engine in the range that would fit a non-collective machine, this route may be desired to drastically reduce the start-up cost and to get you involved in the sport with less money. Once hooked however, you are bound to want to move up to a collective pitch machine. I am going to assume you are starting from scratch and will continue with the idea of starting with a collective pitch helicopter.

Unlike aircraft where there are specific trainer models geared solely for the first time kit, the differences between helicopters is more subtle with the major difference being size and precision. The larger and more precision a machine is, the better it will fly. These machines would make great training helicopters but they are usually a lot more expensive, with high precision parts, and would be very costly to repair in the case of a crash. They are better suited toward competition and the experienced modeler where accidents are usually minimal.

Keep in mind, when learning to fly a helicopter you are bound to have a crash or two and parts are going to have to be replaced. Replacing parts on a precision machine could really run you a bill! A good place to start would be a machine designed for a .30 size engine, a stable flyer with collective pitch, and one with a good availability of parts.

A Note from your new Editor

Hi, my name is Charlie Teixeira and I have agreed to take on the duties as editor of the newsletter. I'm not sure what I am getting into, but figured it was time to give something back to a club and hobby that has given me so much pleasure over many years.

If you have any suggestions as to what you would like to see in the newsletter let me know either in person or preferably via e-mail (cteixeira@ghg.net). Remember this is YOUR newsletter and it should be of service and value to you or we are all wasting a lot of time. So how about some articles on current building projects or that new engine you got for Father's or Mother's Day? And yes, how about some "want to buy" or "for sale" items?

Closing

Hope to see more of you at the next club meeting which will be held on the second Thursday, July 13, 2000.

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