



The R/C Flyer

Volume 26, Issue 12

December 2002

Next Meeting – Christmas Party-Thursday, December 12, 2002 at 7:00pm - Clear Lake Park Bldg.

November 2002 Meeting Minutes

By: Editor

No business was conducted nor minutes taken as the club held its annual auction. Good crowd attended with many great deals to be had. Dave Hoffman did his usual excellent job as auctioneer.



Above photo courtesy of Jerry Beamguard- Thanks Jerry!

December meeting Entertainment

Mr. Bob Obenberger of Romco Inc. (True-Turn products) will present the program at the December meeting. There will be door prizes and drawings so plan on attending for what promises to be a great program *and Christmas Party!*

Membership Renewal Time!

If you haven't received your renewal packet or haven't renewed as you are reading this-- **renew your JSCRCC club membership NOW.** A form is enclosed with this newsletter in case you didn't receive the form in the mail or misplaced it.

Anyone who does not renew by the middle of December will not be included on the membership list Hoffman will supply to security.

If not on the list--you will not be able to fly in January until the list is updated with NASA Security--which can take from one to four weeks after you renew.

New membership cards are in the process of being printed. **Only new 2003 cards will be recognized by security beginning 1-1-03.** There will **NOT** be the overlap of cards that we had in past years. Also make sure you take care of your AMA dues. If you renew your AMA membership on your own, remember to include a copy of your membership card along with your club renewal.

All renewal forms should be mailed to Dave Hoffman, 412 W. Pasadena Blvd, Deer Park TX, 77536-4864.

The following two articles are courtesy of the AMA National Newsletter

Engine Idle

A good reliable idle is a great confidence builder. Most motors will idle reliably if the plug is good, the

fuel is fresh, and the mixture is lean enough. If the mixture is too lean, the engine will idle well, but when you give it throttle, it will run dry, cough, and die. If it is too rich, the engine can continue to idle for quite a long period, but fuel gradually accumulates in the case and when you give the motor throttle, the liquid splashes up into the cylinder and drowns the plug.

The way to go about adjusting the idle mixture is to pinch off the fuel line and see how the engine acts when the fuel is shut off. If, after stopping the fuel flow, the motor runs more than 10 to 12 seconds, the mixture is too rich. If it shuts off in less than four or five seconds, your mixture is too lean. This check should be made after the engine has been idling for 15 to 20 seconds so the crankcase accumulation can stabilize. Once you have an adjustment that seems to work, it's best not to fool with it.

Things that can foul up the detail include a plug that has become oxidized or fuel that doesn't have enough nitro. Assuming that you have a good plug, the fuel is fresh and contains the right amount of nitro, and your engine does not idle properly, the thing to look for are air leaks. Air leaks could come from a loose rear cover, a leaky gasket, a worn main bearing, a worn piston, leaks around the carburetor, or leaks around the high speed needle thread. These will all contribute to an unstable idle.

Tightening the rear cover or replacing the gasket will usually take care of that kind of problem. A bit of fuel tubing between the high speed needle and seat can stop an air leak around the needle valve. If you have a worn piston skirt or main bearing, there is nothing but a major engine repair that will do much good.

If your engine seems to idle satisfactorily with the glow heater on, but slows and dies when the glow plug heater is off, try a hotter (or new) plug. If that fails, try changing fuel. An inverted motor is always more difficult to get to idle reliably than an upright one. Avoid inverted installations whenever possible.

Don't be a person who thinks that zero rpm is the proper idle speed, but grumbles when he hits the throttle for a go-around and nothing happens. Not one in 100 models can't be landed with a 3,000 rpm idle speed. Most properly adjusted motors are better than 99% reliable at this rpm.

As the motor wears and you start to get more leakage, the first symptoms to appear are idle problems when the engine is hot. That is, your motor

will seem to idle quite nicely when you first start it up and taxi it around on the ground. But when you take it up and run it around hard for a while and get it good and hot, then pull it back for an idle, the oil that seals around the piston skirt and the bearing is too thin and doesn't hold compression as when it was cooler. The result is that the engine quits. Sometimes it's pretty hard to convince a person whose motor has run like gangbusters that it quits at idle time because it has seen too much flying time.

Now for the opposite situation. A brand new motor will seldom idle reliably until it has run enough to free up. A motor that is nice and free can misfire a time or two and still carry on, whereas a tight motor will stop if it misfires just once.

Getting a nicely working linear carburetor with no lean or rich spots is pretty much a matter of luck. This is because of the wide variations of fuel used, prop size and type, the way various manufacturing tolerances may accumulate, and the small amount of fuel flow. Also, as a motor settles in, its demands may change. A carburetor that works beautifully on one motor doesn't always work well on another, even of the same make and model.

From *The Marks Informer*
Mid-Atlantic Radio Kontrol Society
Art Perry, editor
Berlin MD

Facts About Balsa

Model airplanes are no different from any other type of flying machine, large or small. The lighter it is built, the better it will fly! With that in mind, it is easy to understand why balsa wood has been the standard material for model airplane construction since it first became readily available in the US in the late 1920s. Its outstanding strength-to-weight ratio enables hobbyists to construct durable models that fly in totally realistic manner. Balsa also absorbs shock and vibration well and can be easily cut, shaped, and glued with simple hand tools.

Where does balsa wood come from? Balsa trees grow naturally in the humid rain forests of Central and South America. Its natural range extends south from Guatemala, through Central America, to the north and west coast of South America as far as Bolivia, however, the small country of Ecuador on the western coast of South America is the primary source of model aircraft grade balsa in the world.

Balsa needs a warm climate with plenty of rainfall and good drainage. For that reason, the best stands of balsa usually appear on the high ground between tropical rivers. Ecuador has the ideal geography and climate for growing balsa trees. The scientific name for balsa wood is *Ochroma lagopus*. The word balsa itself is Spanish meaning raft, in reference to its excellent flotation qualities. In Ecuador it is known as *Boya*, meaning buoy.

How does balsa wood grow? There is no such thing as entire forests of balsa trees. They grow singularly or in very small, widely scattered groups in the jungle. For hundreds of years, balsa was actually considered a weed tree. They reproduce by growing hundreds of long seed pods, which eventually open up and, with the help of the wind, scatter thousands of new seeds over a large area of the jungle. Each seed is airborne on its own small wisp of down, similar to the way dandelion seeds spread. The seeds eventually fall to the ground and are covered by the litter of the jungle. There they lay and accumulate until one day there is an opening in the jungle canopy large enough for the sun's rays to strike the jungle floor and start the seeds growing. Wherever there is an opening, made either by a farmer or by another tree dying, balsa will spring up as thick as grass. A farmer is often hard put to keep his food plot clear of balsa. As the new balsa trees grow, the strongest will dominate and the weaker trees will die. By the time they mature, there may be only one or two balsa trees to an acre of jungle.

How long does it take a balsa tree to grow? Balsa trees grow very rapidly (like all pesky trees). Six months after germination, the tree is about 1 1/2 inches in diameter and 10 to 12 feet tall! In 6 to 10 years, the tree is ready for cutting, having reached a height of 60 to 90 feet tall and a diameter of 12 to 45 inches. If left to continue growing, the new wood grown on the outside layers becomes very hard and the tree begins to rot in the center. Unharvested, a balsa tree may grow to a diameter of six feet or more, but very little usable lumber can be obtained from a tree of this size.

The balsa leaf is similar in shape to a grape leaf, only a lot bigger. When the tree is young, these leaves measure as much as four feet across. They become progressively smaller as the tree grows older, until they are about 8 to 10 inches across. Balsa is one of the few trees in the jungle which has a simple leaf shape. This fact alone makes the balsa tree stand out in the jungle.

How are balsa trees harvested? While nature intended the balsa tree to be a short-lived nursemaid, humans eventually discovered that it was an extremely useful resource. The real start of the balsa business was during WW I, when the allies were in need of a plentiful substitute for cork.

The only drawback to using balsa was, and still is, the back-breaking work that is necessary to get it out of the jungle.

Because of the way the individual balsa trees are scattered throughout the jungles, it has never been possible to use mass production logging procedures and equipment. The best way to log balsa trees is to go back to the methods of Paul Bunyan—chop them down with an axe, haul them to the nearest river by ox team, tie them together into rafts, and then float the raft of balsa logs down the river to the saw mill.

The logging team usually consists of two native Ecuadorians, each armed with a broad Spanish axe, a machete, and a long pole sharpened like a chisel on one end for removing the bark from the downed trees. Because of the hilly terrain, an ox team may only be able to drag two logs to the river per day. At the sawmill, the balsa is first rough cut into large boards, then carefully kiln dried, and finally packed into bales for shipment to the US via ocean freighter.

Why is balsa wood so light? The secret to balsa wood's lightness can only be seen with a microscope. The cells are big and very thinned walled, so that the ratio of solid matter to open space is as small as possible. Most woods have gobs of heavy, plastic-like cement, called lignin, holding the cells together. In balsa, lignin is at a minimum. Only about 40% of the volume of a piece of balsa is solid substance.

To give a balsa tree the strength it needs to stand in the jungle, nature pumps each balsa cell full of water until they become rigid—like a car tire full of air. Green balsa wood typically contains five times as much water by weight as it has actual wood substance, compared to most hardwoods which contain very little water in relation to wood substance. Green balsa wood must therefore be carefully kiln dried to remove most of the water before it can be sold. Kiln drying is a tedious two week process that carefully removes the excess water until the moisture content is only 6%.

How light is kiln-dried balsa wood? Finished balsa wood, often found in model airplane kits, varies widely in weight. Balsa is occasionally found weighing as little as four pounds per cubic foot. On the other hand, you can also find balsa which can weigh 24 pounds or more per cubic foot. However, the general run of commercial balsa for model airplanes will weigh between 6 to 18 pounds per cubic foot. 8- to 12-pound balsa is considered medium or average weight, and is the most plentiful. Six pounds or less is considered "contest grade," which is very rare and sometimes even impossible to obtain.

Is balsa the lightest wood in the world? No! Most people are surprised to hear that botanically, balsa wood is only about the third or fourth lightest wood in the world. However, all the woods which are lighter than balsa are terribly weak and unsuitable for any practical use.

The very lightest varieties don't really resemble wood at all, as we commonly think of it, but are more like a tree-like vegetable that grows in rings, similar in texture to an onion. It is not until balsa that there is any sign of real strength combined with lightness. In fact, balsa wood is often considered the strongest wood for its weight in the world. Pound for pound it is stronger in some respects than pine, hickory, or even oak.

From *RC Propwash*
Ocala Flying Model Club
Dick Smith, editor
Ocala FL

Scientific Fact (according to Brian Morris)

Helicopters can't fly; they're just so ugly the earth repels them!

Mark Your Calendars

By: *Harold Rosenberg*

The following days are federal holidays so flying at the JSC club site is permitted. Mark those calendars folks!

JAN 1, 2003 WED-New Years Day
JAN 20, 2003 MON-MARTIN LUTHER KING BD
FEB 17, 2003 MON-GEORGE WASHINGTONS BD
MAY 26, 2003 MON-MEMORIAL DAY
JULY 4, 2003 FRI-INDEPENDANCE DAY
SEPT 1, 2003 MON-LABOR DAY
OCT 13, 2003 MON-COLUMBUS DAY
NOV 11, 2003 TUES-VETERANS DAY
NOV 27, 2003 THUR-THANKSGIVING DAY
DEC 25, 2003 THUR-CHRISTMAS DAY

Club Officers

President	Clay Bare	281-488-2992
Vice-President	John Boyle	281-630-4526
Treasurer	Dave Hoffman	281-476-5206
Secretary	Mike Goza	281-554-4016(H) 281-483-4695(W)

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Mike Laible	281-474-1255	281-853-1604
James Lemon	281-557-1602	281-280-1267
David Hoffman	281-476-5206	281-479-1945
Clay Bare	281-488-2992	
Don White	281-488-1024	

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The R/C Flyer

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Charlie Teixeira

Articles and Want Ads may be submitted to Charlie Teixeira at 1711 Bowline Rd, Houston TX 77062 in hard copy or via e-mail (preferred) to ctei@sbcglobal.net

To get the newsletter via e-mail go to www.jscc.org and click on the "Subscribe to Newsletter". Once you have subscribed you will automatically receive the newsletter each month. If you have been receiving the newsletter via snail mail, contact Dave Hoffman at dhoffman@flash.net and ask him to take you off the hard copy mailing list. If you have any questions concerning "Boomstrike" contact Preston Hunt at boomstrike@ev1.net. For issues that relate to the JSCRC web site www.jscc.org, you can use webmaster@jscc.org, which will send email to Preston and Mike Laible.

Assembly, Posting, Distribution

Bob Blaylock

Club Homepage

www.jscc.org



JSCRCC Annual Christmas Party

December 12, 2002

7:00 PM

The club will furnish meat, bread, drinks and plastic ware. Members are requested to bring a finger food, dip, or favorite desert. The party is open to all members, their family and if you wish, a guest.

Also during the party, the Model of the Year (MOY) will be selected. To be considered for MOY, the model must have been a Model of the Month in the current year, be present, have flown, and still be flyable. Club members at the Christmas party would be eligible to vote for MOY. Prizes will be \$100, \$50, and \$25 for 1st, 2nd and 3^d places respectively.

*Season's
Greetings*

JSC-RCC REGISTRATION FORM
2003

RENEWAL NEW MEMBER DATE: _____

NAME: _____ SPOUSE'S NAME: _____

ADDRESS: _____ BIRTHDATE: _____

CITY: _____ STATE: _____ ZIP: _____

HOME PHONE: (____) _____ BUS. PHONE: (____) _____

AMA #: _____ STUDENT PILOT DATE FIELD PASS SENT _____

EMAIL ADDRESS _____

CHECK HERE TO RECEIVE NEWSLETTER VIA EMAIL. (HARD COPY WILL NOT BE SENT)

DUES:	ADULT RENEWAL BEFORE DEC. 31	\$25.00	SEND COMPLETED FORM TO:
	ADULT RENEWAL AFTER DEC. 31	\$30.00	DAVID M. HOFFMAN
	ADULT NEW MEMBERSHIP	\$30.00	412 W. PASADENA BLVD.
	JUNIOR/SENIOR (UNDER 19) NEW	\$10.00	DEER PARK, TX 77536
	JUNIOR/SENIOR RENEWAL	\$ 8.00	(PHONE # 281-479-1945)

AMOUNT REMITTED: CLUB DUES: _____ (PAYABLE TO JSC/RCC)
AMA ADULT \$58.00 AMA DUES: _____ (PAYABLE TO AMA)

AMA YOUTH (<19) \$15.00

AMA NO MAGAZINE: YOUTH: \$1.00 AMA SECOND ADULT IN HOUSEHOLD: \$30.00