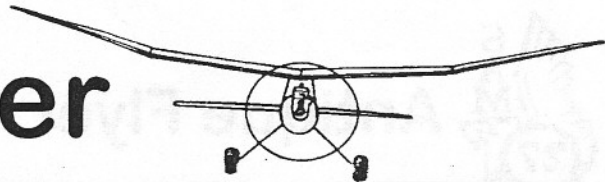




Antique Flyer



AMA CHAPTER #108

August 1995

Issue 156

July Chapter Meeting

By John Carlson

Vacation time resulted in a relatively light attendance of only 23. However a good and lively meeting was enjoyed (I think) by all. Visitors included Tim Eriksen and son David from Novato and invited by Prez Rod after meeting them during a visit to Hangar One. Hope to see you again soon. Also Stu Bennett, well known to many, an Oakland Cloud Duster and active SAM F/F'er, came with Bill Vanderbeek. These guys never come empty handed but always bring really nice prizes for the Raffle. Thanks again to you both. Another attendee we had not seen for some time was member Janina Robinson who sadly informed us that circumstances made it necessary to return to British Columbia for at least the immediate future. Those present expressed their disappointment at this news and all wished Janina well, with the hope she would soon return. Maybe she can find her way clear to attend the Crash & Bash in October. We hope so!

ANNOUNCEMENTS

Prez Rod Persons presented a Certificate of appreciation to Remo Galeazzi for his hosting last month's meeting and his presentation on the restoration of the Rose Parakeet aircraft. Another Certificate was presented to Don Bekins for his discussion on the use of Polyspan covering.

John Carlson advised that the lease with the Novato Fire Protection District for the use of our meeting room has been renewed for another year.

John also advised that the Napa R/C Club flying field at Kennedy Park is in danger of being shut down as a result of complaints from residents in the development across the river.

Stu Bennett announced that the US/West Team had won the postal meet for the

Chardonnay Cup sponsored by the Australian F/F'ers. Entries were from Australia, New Zealand, US/ West and US/East (and maybe Canada), all former British colonies, resulting in the alternate name of FOCKUP for the contest. The model flown was the FAI Coupe. High scorer was Bob White. The prize was a bottle of Chardonnay, all of the entry countries being producers of that product.

OLD BUSINESS

Polyspan

The Polyspan is selling well. Maybe too well. As of 7/26 we have sold all but about 15 ft, leaving less than 25 ft of the original 50 m. (164'). We had to limit sales to SAM 27 members only, which resulted in refusing Jim Adams, of all people. Sorry Jim!! Don Bekins is trying to find another source for the material. To avoid potential problems with Starline who have, or are, trade marking the name Polyspan, we are seeking another name. PolySAM and SAMspan have been suggested. Any further suggestions?

Carbon Fiber Tow

The June 1995 Antique Flyer contained an offer of FREE carbon fiber tow to anyone sending a SSAE. Well, things just got easier - Fred Terzian brought and presented to SAM 27 a large spool of the material. The quantity is unknown but it looks like a lot. The Club will have the spool available at future meetings and any reasonable quantity will be given to attendees. Quite a few took advantage of the offer that evening without making an observable dent in the quantity. The tow is about .006" thick, 1/4" wide, with parallel, non-woven strands and makes ideal reinforcement to structural members in tension, such as the bottom of a spar, when attached with CA or epoxy.

SAM Rules Balloting

Don Bekins reminded members that the July-August SAM SPEAKS contains the ballot form for the proposed 1995 rules changes and urge everyone to send in their vote without delay. Don also

advised that Bruce Augustus will be replacing Bill Kimbell as Editor of SAM SPEAKS.

SAM CHAMPS

During his recent visit to Colorado, Don Bekins, with Art Hillis, toured the contest site. Don Reports every thing is looking good but advised that any with Trexler wheels on their model should change to a foam or solid tired wheel. It seems there is a fairly small, low growing cactus at scattered locations, the spines of which are deadly to the thin Trexler tires but no problem to shoe soles or bike tires. The previously reported lone tree in the several square mile site is recognized as being a magnet for F/F models and therefore a special prize (or prizes?) will be awarded for landing in the tree. Don also reported that plywood sheets would be provided for model takeoff.

O/T Rubber Meet

Jerry Rocha reported that the parking area had been mowed to reduce the fire hazard and would be marked with tape. Jerry, Dick O'Brien and Bob Wakerley did the mowing job. Thanks guys!! A brief report and contest results appear elsewhere herein.

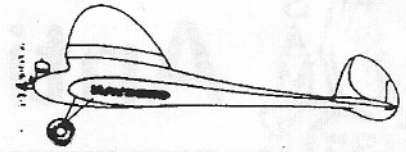
1/2 A Texaco Scale Postal Meet

SAM 27's team for this was hastily pulled together by telephone and during the MECA Collecto, and arranged to be flown on Sunday, July 16. Ed Hamler was away in Alaska so Jerry Rocha did the CD honors. The weather was ideal, warm with a light breeze and pretty good thermal action as the day progressed. Results were as follows:

Ray Mc Gowan	Messerschmitt M-17	1679 sec.
Jerry Rocha	AVRO 560	1537 sec.
Pete Samuelsen	J-3 Cub	494 sec.

Team Total 3710 sec.

Also flying, but not very well, was John Carlson with his Anzani Longster. With much encouragement from Bob Wakerley and after several crashes, two official



flights were posted but not enough to make the team. John announced he needs the radio and servos for another, more controllable model and retired the Longster to the attic, or ceiling, or something.

MECA

Collecto Rod Persons reported on the Collecto held on Saturday, July 15 in the gym at the Napa Redwood Middle School. In spite of the HOT weather, there was a good turnout and many bargains for those who knew value and looked carefully. Ed Solenberger reported an amazing coincidence. For sale on one of the tables was the, (not a, but THE) Miss America model that Ed had built in 1962 and later sold or traded. It was in perfect shape with the original 33 year old silk covering. The model was purchased at the Collecto by Englishman Mike Clansford, author of the "Model Engines A to Z" book. The next Collecto will be held at Oakland in the fall.

Technical Presentations Rod Persons again asked for suggestions for future technical presentations. Rod offered to line up a speaker, all he needs is topic suggestions. Come on Guys - lets think about it. These are your meetings.

Crash & Bash We had expected Loren Schmidt, our C&B host, to attend the meeting but for some reason he didn't show. Perhaps he remembered, that unlike his SAM 30 pals, the SAM 27 wimps seldom serve any food at their meetings. Anyway, Rod Persons reported that things were in hand. Don Bekins and Ed Hamler would be mailing out a flyer very soon. The events will be the same as last year. After the meet a review of entries will be made to possibly eliminate or combine some events in 1996. Rocco Ferrario has the balsa prize and the food situation arranged. Joe Meere is working on the Raffle prizes - anyone with anything to donate please contact Joe.

O & R T-Shirts

T-shirt sales have been very slow due to the lack of a vigorous marketing effort. Don Bekins thinks we can sell most of them at the SAM CHAMPS, particularly if we have them available at the Sunday Collecto. Arrangements need to be made to locate the shirts, transport to the CHAMPS and display them at the Collecto.

More discussion on this next meeting.

NEW BUSINESS

We apparently covered any potential New Business items under Old Business so we proceeded to the Technical presentation.

TECHNICAL PRESENTATION

Nick Sanford had been scheduled to discuss the fabrication of fiberglass parts but he recruited Ed Solenberger to substitute for him. Ed gave a very interesting talk and demonstration using the plug and molds he had used to produce a fiberglass engine cowling. The plug is a male mold that could be carved from some soft wood in the exact size and shape of the desired finished product. Ed used redwood. The plug was made in two halves temporarily joined during the carving process and carefully finished so the surface is as smooth as is desired for the finished fiberglass part. A couple of coats of varnish or similar coating seals the wood prior to applying a parting agent which may be something like shoe polish or a commercial product. The two halves are separated and placed on a flat surface to which the parting agent is also applied. Next, female molds are made of each half by taking some ordinary construction type (pink) fiberglass insulation mat and saturating with an epoxy resin. Ed recommends the 45 minute Hobby Poxy made by Pettitt for both the female mold and for laying up the finished part. He has had much better results with the epoxy than with polyester resin. The saturated pink fiberglass mat is firmly pressed down over each plug half. Ed uses his bare hands and says a prompt washing in warm water and soap does the trick. Because some may experience skin irritation or an allergic reaction from contact with the epoxy, the use of disposable latex gloves may be desirable. The mold should be made sufficiently thick so as not to distort during subsequent operations. The inside of each mold half is coated with parting agent, another batch of epoxy mixed and the final part made by laying in layers of fiberglass cloth or matting of adequate

thickness well impregnated with the epoxy. After setting up, the two halves are removed, carefully trimmed and joined using strips of fiberglass cloth set in epoxy on the inside of the seam. The finished product should now be of identical size and surface finish of the original plug. Ed passed around examples of the plug, mold, and the completed cowling. Thanks Ed - a great job.

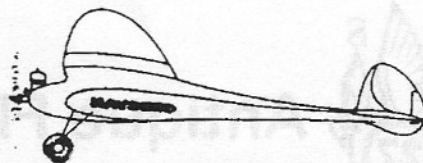
SHOW & TELL

Don Bekins displayed a framed Ramrod model he hopes to finish for the SAM CHAMPS Class C event. This model has about a jillion ribs which Don made from stacking sheets, band sawing and sanding to final shape. The spars are reinforced with carbon fiber. Power will be a Johnson 35 recently acquired from Bill Vanderbeek. Looks like another winner.

Ed Solenberger showed a muffler extension now on the market and made by Dubro. It replaces the back end of standard mufflers and due to its conical shape and concentric ribs matches up with a wide range of sizes. The interior of the extension contains a number of parallel silicone tubes. Tubes may be removed or added depending on the degree of noise attenuation desired and to optimize engine performance. Ed reports a very significant noise reduction by it's use.

Nick Sanford brought a completely framed stabilizer utilizing laminated Obечи wood leading and trailing edges and tips. Each lamination is about 1/20" thick and 5 or 6 are sufficient. The end of a stack of laminations is secured with a drop of thin CA and the strips bent dry around a form or the structure. After it is place, a few shots of thin CA along its length holds its shape. Anyone interested could check with Nick or Park Abbott regarding a source for the Obichi sheet.

Bill Kast displayed a beautifully constructed, scratch built, completed scale model of a Citabria Pro, a rare, parasol, open cockpit version of the normally cabin type aircraft. Bill built the model several years ago but never got around to flying it. It is complete with servos, less radio and engine and is finished in a beautiful red and white starburst pattern. Bill offered the



model to the club with the suggestion that some sort of raffle could raise money for the Jr. O/T Program. Brian Ramsey suggested a silent auction to be publicized among some of the other clubs in the area. It was also suggested that an engine and radio be provided to make the package complete and more attractive. Brian volunteered to take on this project. Thanks Bill and Brian!!!

Ron Keil produced a Cox 3-channel radio donated from the estate of our late member Tom Brennan. It was suggested that this, in some way, be used to further the Jr. O/T Program. Ron also unrolled plans to display what Ron termed as the ugliest model design he had ever seen. Some of the others thought the adjective should be "very strange" instead of "ugly". In any case it is hoped that Ron will show up at one of our future meetings with the finished product. The model is a Col. Boude(?) design named the Kanga Kub. The landing gear spread is 18". It has a good under cambered airfoil and a large stabilizer. If and when Ron builds it he will use it in the R/C Class A Texaco event.

Rod Persons showed his completed Top Banana 1/4 A Nostalgia model. The covering is Polyspan featuring Rod's trademark red and green color scheme and computer generated graphics. The deep green coloring used aniline dye purchased from the Constantine's (NY) mail order house. The dye was mixed in a 95%-5% thinner/dope mixture sprayed on the covered and doped model. A very little bit of the dye goes a long way. A beautiful and well constructed model. On the subject of dye, Ed Solenberger suggested consideration of a dye available at New York Fabrics stores in powder form. Ed says this product should be mixed in methanol before adding to a dope/thinner mixture.

RAFFLE

Don Bekins brought for the Club's purchase as raffle prizes a dozen of the servo actuated fuel shut off valves manufactured by Classic O/T Engines of Perrysburg, OH (see adv. in SAM Speaks). These sell for about \$12 ea. including shipping. The Club paid \$85 for the dozen, a good deal.

PRIZE	DONOR	WINNER
Mini Max Kit	Bill Vanderbeek	Rod Persons
Rubber Kit	" "	Brian Ramsey
R/C Glider	Stu Bennett	Ron Keil
DH-4	John Hlebcar	Rick Madden
Prop Balancer	?	Ron Keil
Control Rod	SAM 27	Ed Solenberger
Tubing Bender	SAM 27	Bill Vanderbeek
Decals	SAM 27	Rick Madden
Fuel Cut Off	SAM 27	Bill Vanderbeek
Miter Rite	SAM 27	Rod Persons
Accelerator	SAM 27	Nick Sanford
Fuel Bulb	SAM 27	Bill Vanderbeek
Engine Mounts	Rod Persons	John Carlson
Total Collected		\$68.00

Wes Funk notes that anyone needing a 1/2 oz. fuel tank for 1/2 A Texaco Free flight or A Texaco R/C has found a supply. They are listed in the Carolina-Taffinder brochure, as Texaco Tanks. Several are available with outlets in different locations. There address is:

Carolina-Taffinder
8345 Delhi Road
Charleston Hgts., SC 29418
803-553-7169

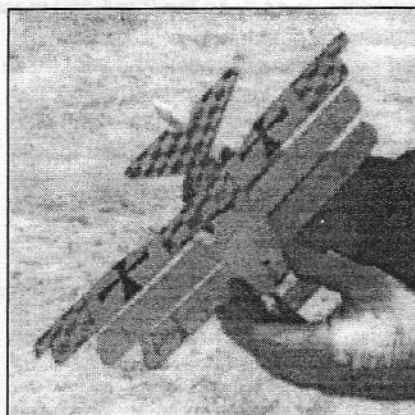
NEW MEMBER

We wish to welcome Dan Carpenter of Manhattan Beach, CA to SAM 27. Buzz Passarino had mailed a couple of copies of our newsletter to Dan who thought it was so great he had to join. Dan says that Buzz taught him how to fly his first Westerner back in 1945. He just recently joined SAM 13, SCAMPS.



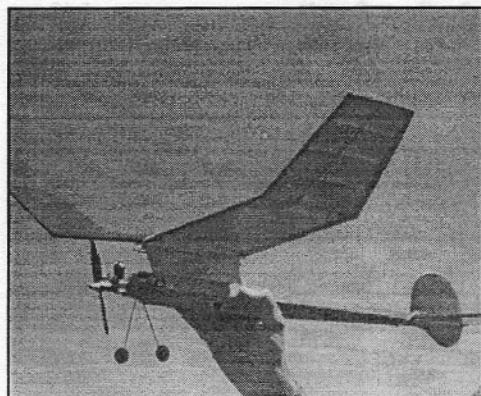
"YOU GONNA TRY TO FLY THAT?"

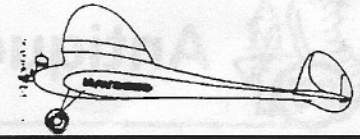
Right:
Jerry Rocha's
Zephyr, Sal Taibi
Design.
.020 Cox power,
1/4 A Nostalgia



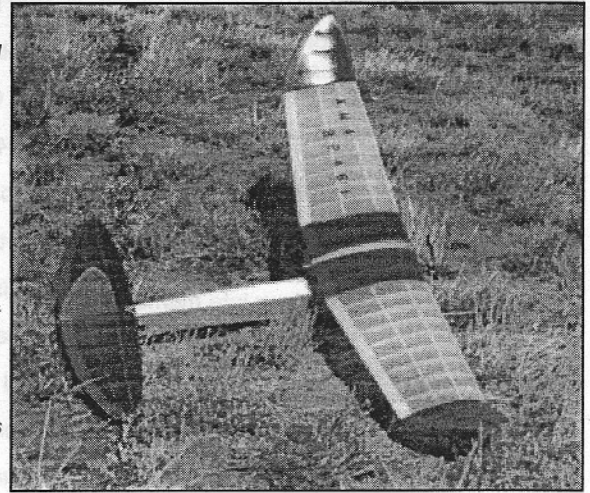
Bill Hurley's Triplane is covered with 1939 tissue. Built from a Megow Dime Scale Kit. Bill won 2nd place in the Small Rubber Event, July 22. Model flew O.S.S. and has not yet been found.

John Hlebcar Photo





Left: New SAM Speaks Editor, Bruce Agustus with a Mc Coy 60 powered Sailplane at the '93 SAM Champs. Bruce lives in Hailey, Idaho.



Right : Zeek, Class A Nostalgia Free flight. Would make an excellent choice for the Small Nos. R/C event.

Wes Funk Photos

Contests

The July meet at the Lakeville site was actually held over a two weekend period. The wind came up early on the 22nd and most events were postponed until the 29th. A good sized group was on hand with there models on the 22nd. Most of the models sat in the cars and the flyers visiting with each other until about noon when they called it a day.

The results of the meet on the 29th are.

Hand Launch Glider/Catapult	2 min.
1 Norm Smith	3:09
2 Bernard Guest	2:36
3 John Hlebcar	2:26
O.T. Large Rubber	3 min.
1 Jerry Rocha	8:34
2 Bill Hurley	1:53
3 Sean Crowley	4:42
O.T. Small Rubber	3 min.
1 Bill Kast	3:06
2 John Hlebcar	4:22
3 John Allen	1:46
.020 Replica & Nostalgia	:90 sec.
1 Jerry Rocha	4:24
2 John Hlebcar	4:22
3 Rod Persons	3:58

SAM 34 / SAM 51 Contest held at Carson City, NV. August 5th and 6th under a warm sun and moderate breezes.

28 Flyers had 10 events to choose and fly. With an outstanding field to fly from and great prizes, (kits, engines and wing weight hold downs) made for a good weekend.

Don Bekins and Wes Funk, representing SAM 27 came away with 3 First, 2 Second, and 1 Third place awards.

Don winning 1st in A ign., and Ohlsson / Brown Jr. , 2nd in B / C ign., and 3rd in A Glo LER.

Wes took first in Electric Texaco and 2nd in A Texaco.

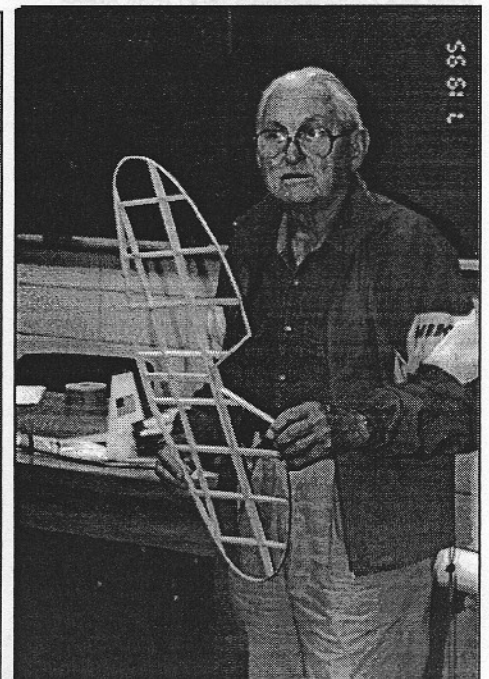
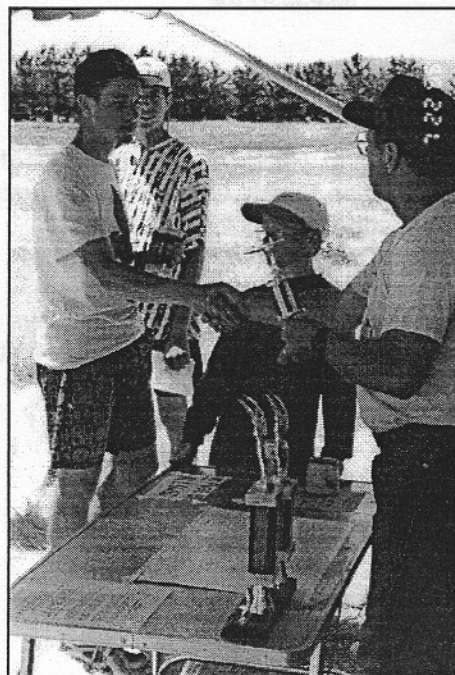
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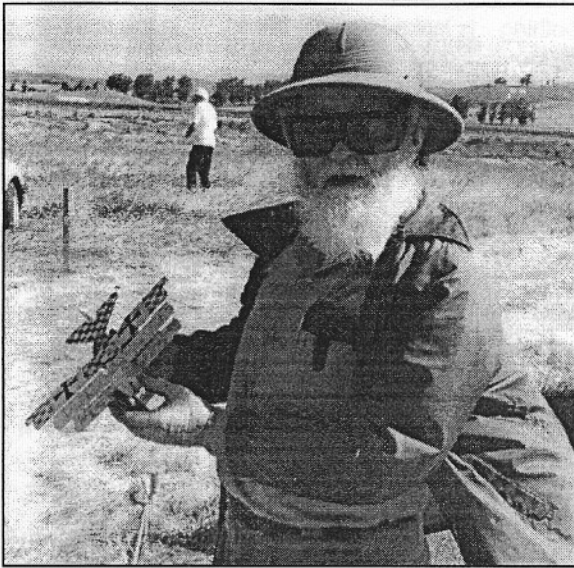
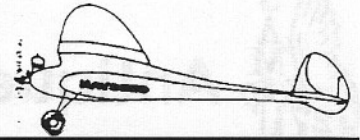
Sean Crowley receives trophy from Rod Persons at the Lakeville Contest.

Below Right:

Nick Sanford shows use of Obechi wood on stab outline.

John Hlebcar Photos

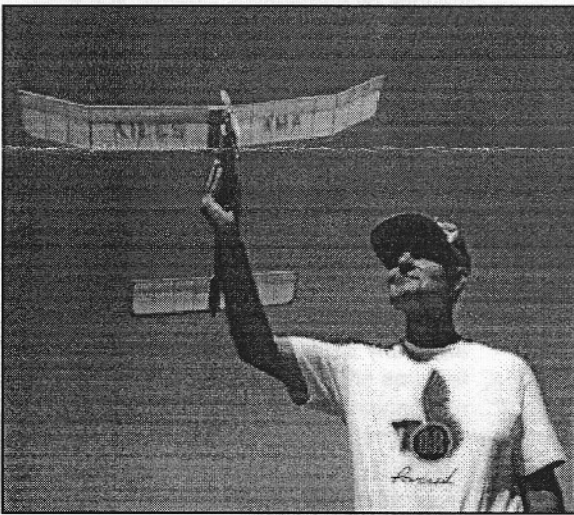




Left:
Bill Hurley with Triplane
that was lost O.O.S. after
this picture was taken.
John Hlebcar Photo



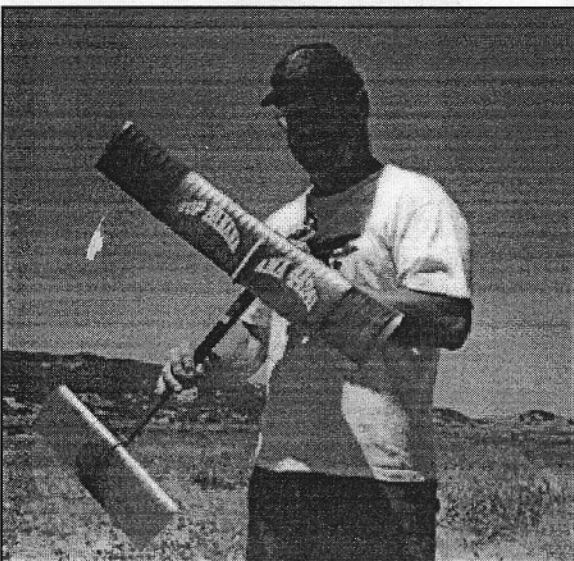
Right:
John Hlebcar with with
.020 nostalgia FUBAR.



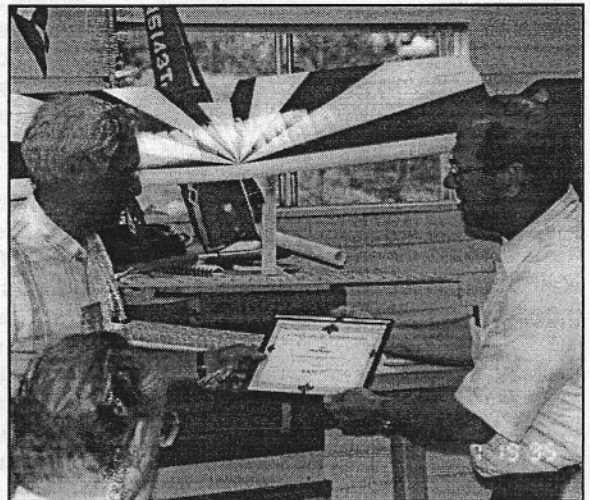
Left:
Jerry Rocha with a 1955
Paddy's Wagon, Wasp
.049 power.



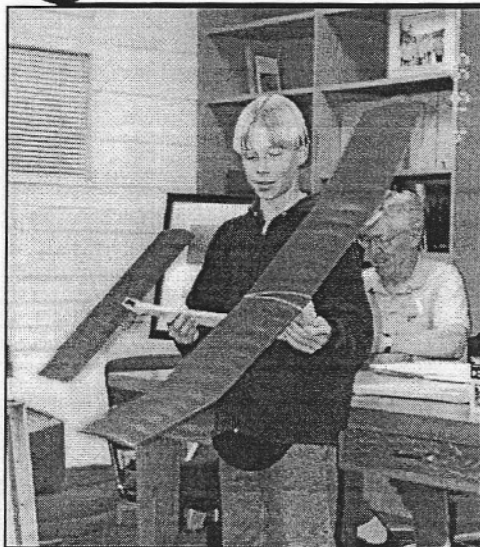
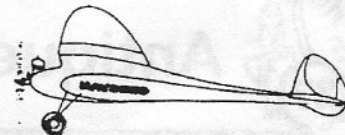
Right:
Jerry, with .020 nostalgia
Zephyr, designed and
autographed by Sal Taibi



Left:
Rod Persons with .020
nostalgia Top Banana.
Jerry Rocha Photos



Right:
Don Bekins receives certificate
for technical pre-
sentation.
John Hlebcar Photo



James Terry with Staitduster-X

John Hlebcar Photo

FREE WHEELERS

Paul McClrath

A large, wide-blade propeller is the trademark of a high climbing rubber powered model. But the big fan that is so efficient under power, is nothing but a big DRAG when the motor is unwound.

To get rid of this drag, some smart Junior Birdman invented a gadget that let his propeller windmill freely after the power ran out. The idea took the name "Free-wheeling" from a similar device that was popular on the automobiles of the day. And free-wheeling so improved the glide of those early planes that record books were rewritten.

No special tools are required to build most types of free-wheeler, but a good pair of pliers IS necessary. Long nose pliers are the handiest for wire bending. The miniature sizes are rugged enough for wire sizes of 1/32 or 3/64 inch diameter. Good quality diagonal cutters will cut hard steel music wire; cheap ones won't. Several shapes of noses are made specially for wire bending, but thousands of fine models have been built with nothing fancier than old-faithful mechanic's pliers. It is important, though, that your pliers have a solid, tight joint at the hinge pin. If they twist and slip, you'll end up with nothing but crooked parts and a long list of bad words.

Use a small file for cutting and smoothing wire and metal parts. Wire and tubing can be broken after notching with the files. Aluminum tubing can be cut with a model maker's knife, but a fine razor saw or hack saw is necessary for cutting brass tubing and sheet metal.

Most of the materials illustrated are available from Sig or from your hobby shop. Glass beads can often be substituted for washers or eyelets. Beads are used in handicraft projects and are available at hobby shops, and dime or department stores. Of course, you can always buy a Woolworth "diamond" necklace and unstring it. Eyelets (used by the radio control builders) and small washers are available at some hobby shops and mail order houses. Good springs can be found in discarded tire valves, ball point pens, and safety pins.

White glue or airplane cement is needed, but stronger wood-to-metal joints can be made with epoxy glue. Epoxy will even stick metal-to-metal if it is used properly, (clean and rough-up parts before joining).

We have shown several styles of free-wheelers on our page of sketches. The simple cam idea, Figure-1, copied from the plastic props, works quite well if the tension of the unwound rubber is not too great. But, unless there is SOME rubber tension, the propeller won't stay locked to the shaft when you try to hand-wind. In this situation, a winding hook, Figure-2 is helpful even if you aren't using a winder. Just slide a dowel thru the hook and "wind the dowel" until enough tension is built up to lock the shaft to the prop.

The latch made of control line wire, Figure-3, is an improvement over a cam because it doesn't depend on rubber tension and can be made more frictionless. We'll discuss friction later. There are two details to watch in a latch free-wheeler. The latch wire must be long and springy enough to bend inward (lock) and spring out (release) without bending permanently. Also, the latch wire must meet the arm of the shaft at about a right angle or it will slip off when the motor is fully wound. That is about as pleasant as holding 10,000 volts in your bare feet.

A widely used free-wheeler is the "contest standard", Figure-4. This spring operated arrangement is similar to the one used on folding propellers. When the motor is nearly unwound, the spring slides the shaft forward, the prop is released, and the shaft

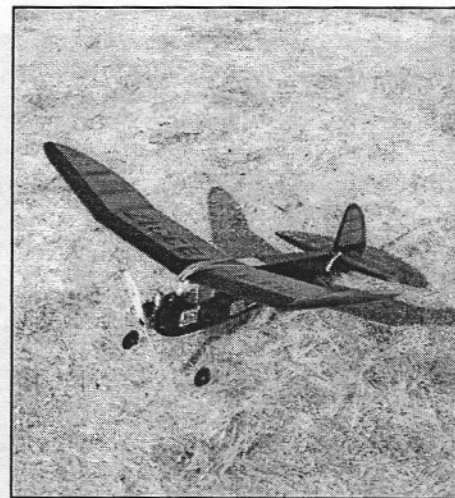
is locked against the screw in the nose-block. Locking the shaft prevents the rubber slack and sliding backward or forward in the fuselage. A long, slack motor can completely destroy a model's balance in the glide unless it is tensioned.

You're probably wondering what the extra tubing and washers are for in our sketch. This is the frictionless feature that we mentioned earlier. Notice that the tubing inside the propeller prevents the tension of the motor (or spring) from squeezing the propeller. The prop is completely free of bind or drag. If you want the very best free-wheeling glide, use this no-drag feature. It can be used with any style free-wheeler except the cams.

The last two gadgets in our collection Figure-5, have the advantage that they don't have to be engaged by hand. They will lock by themselves whether you wind by hand or with a winder. The free-swinger locks when the airplane is tipped nose down during winding.

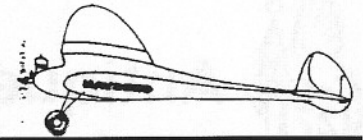
The escapement is automatic self locking, Figure-6, however it puts some drag on the propeller while freewheeling, and the flip-flop part should be kept light and free turning.

Your choice of free-wheeler style will depend on the airplane type, your winding habits, and the available tools and materials. Many variations and combinations of features are possible. Try some of the mechanisms shown here first. Then invent an original design, suited to your tools and materials, and your own free-wheeler needs.

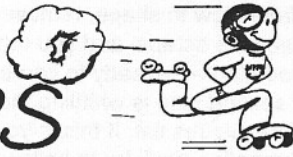


Jerry Rocha's "Purple People Eater"
Elfin 2.49 powered Coronet

Wes Funk Photo



FREE-WHEELERS



FOR THAT "FLOATING" GLIDE

TOOLS & MATERIALS

SAW
FILE
KNIFE

PLIERS:
LONG NOSE
DIAGONALS
OLD FAITHFUL

TUBING
MUSIC WIRE
BEADS
WASHERS
EYELETS
SPRINGS

CONTROL WIRE
THREAD

CEMENT

"PLASTICS" USE THIS CAM.

CAMS CAN BE HOMEMADE FROM:
TUBING, SHEET METAL,
OR EVEN A SPLIT-LOCK WASHER.

THIS HOOK LOOKS NEATEST,
BUT--
THIS KIND IS EASIER TO BEND.

THE SIMPLEST!

BUT ADD A WINDING HOOK.

A FINE WIRE LATCH

THE "CONTEST STANDARD" USES A SPRING TO UNLOCK THE PROP AND LOCK THE MOTOR.

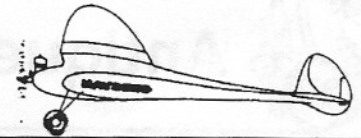
EITHER SPRING WILL WORK.

HOOKS LIKE A SCREEN DOOR.

A SWING-FREE LATCH WILL LOCK BY GRAVITY;

AN ESCAPEMENT IS POSITIVE SELF-LOCKING.

SELF-LOCKING TYPES CAN BE USED ENCLOSED IN A SPINNER.



Carving Your First Propeller

Paul McClrath

A good propeller is a necessary part of a successful flying model. Plastic props are OK to begin with, but usually flights will be higher and longer if a hand carved balsa propeller is used.

If you have a model of about 15 to 22 inch span, try the 6 incher shown here. It may improve the performance of your plane, and carving it yourself will be good practice for the time when you go on to contest models.

Instructions are also given at the end of the article for enlarging the pattern to 7-1/2 inch diameter. That size would do a good job on models like the Sig Cub in the July issue of SAMM.

Now to get started making your first prop.

1) A firm balsa block 6 x 1 x 3/4 or a little larger is required. Cut out the #11 size pattern, crease it on the dash line, and cement it to the front and side of the block.

Next, the hole must be drilled for the shaft. Use great care to get the hole straight in the block—not at an angle, or your prop will wobble as it turns.

If a drill press is available to you, use it to drill the shaft hole or have someone do it for you. That will guarantee a true hole.

Now the block can be cut to outline shape. It is an easier job on an electric jig saw or band saw, but it can be done with a hand coping saw.

First cut out the side view but save the scrap pieces. Pin all the scraps back in place to make a square block again. Then

cut the front view to shape, remove pins, throw away the scraps, and you have a completed blank—ready to carve.

2) The second step is whittling the rear faces of the blades flat. If this is your first carved propeller, don't try to hollow the blades to a spoon-like shape.

Before you make your first cut, look at the drawing of Step-2 carefully and keep a plastic prop on the bench in front of you to look at from time to time. When caning, make small, thin shavings. The knife blade will be easier to control and you'll prevent big mistakes. Remember Whittler's Law: It is easier to cut off 100 shavings than to put back one.

Work a little on the back of one blade and then the other; don't complete one blade before starting the second. Don't carve the corners of the blank to a sharp edge; leave a small square margin around the edge as shown in the sketches of Step 2.

Complete Step-2 by sandpapering the flat blade faces smooth. Use a piece of medium sandpaper fastened around a broomstick or a bottle. The fine sanding will come later.

3) Step-3 is easier than Step-2. It consists of shaping the front surfaces of the blades to the rounded shape shown in the sketches, using knife and sandpaper. Note that the blades are thick near the hub and thinner at the tips.

If this is your first try, don't attempt to get the blades real thin. Thin blades will split and chip easily when your plane hits trees and wires, anyway. Try to keep the blades the same thickness. After a little practice, you will become expert at finding thick

spots by feeling the blade thickness between your thumb and forefinger.

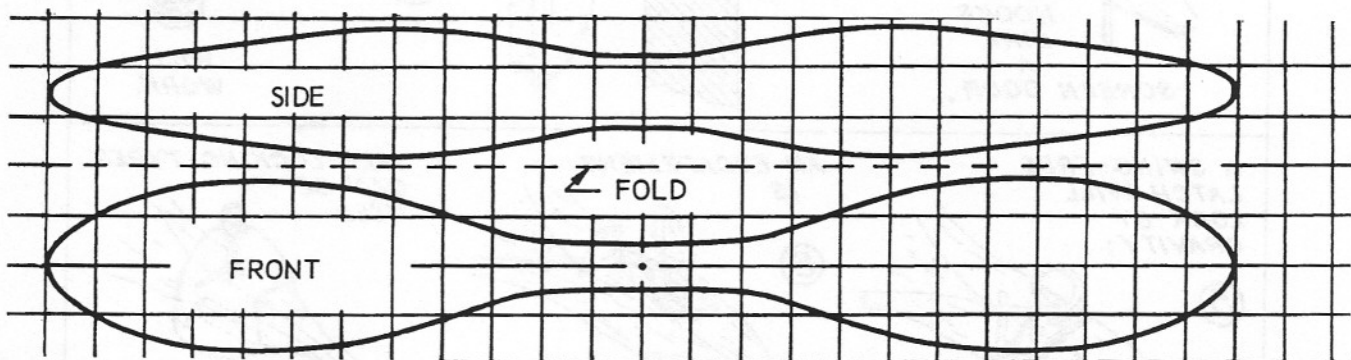
4) If you have done the first three steps carefully, Step 4 is easy. Slide your propeller on a music wire fine enough so that the prop will turn freely. One blade will probably be heavier and swing to the bottom. Look for the thick area on the heavy blade and carve and sand away the excess. Spin the prop again and see if the unbalance has been corrected.

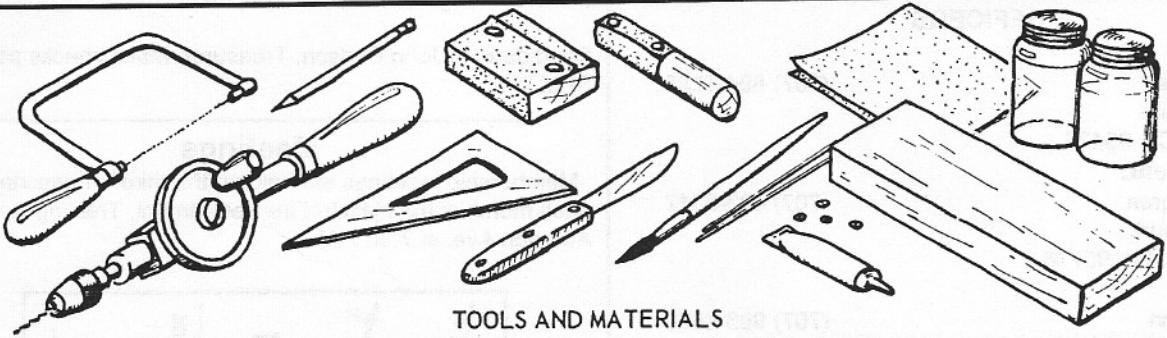
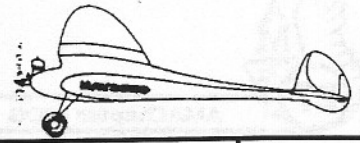
When the balance is perfect, the prop will stop in one position just as often as another. If the prop always stops horizontally, it still isn't right. That means that the trailing edge of one blade and the leading edge of the other blade are too thick. As the balancing progresses, change to finer sandpaper to smooth the blades. The carving of your first propeller is now complete. It wasn't too tough, was it?

If you use filler or dope on the blades, check to be sure that you don't upset the balance with more dope on one blade than the other. Bend a shaft and attach the prop to the plane as shown on the plane's plans.

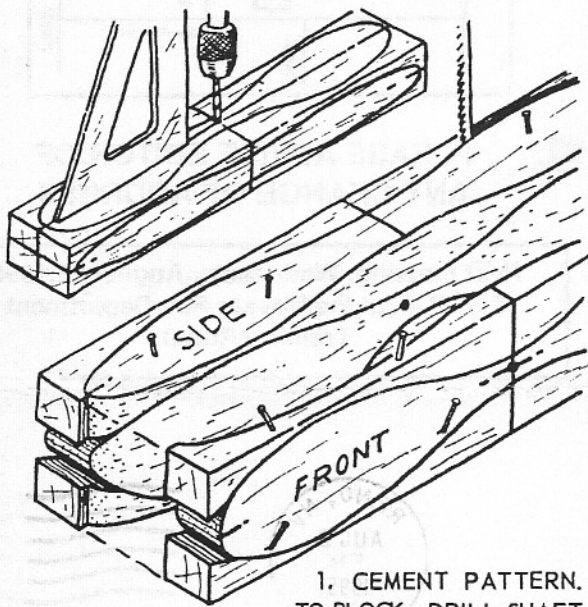
You will probably find that a thicker rubber band or more strands of rubber are needed when you switch to a carved prop. Don't worry. Rubber is your friend, and more fuel usually means longer flights.

You may want to enlarge our pattern to 7-1/2 inch diameter if your model's span is in the range of 18 to 26 inches. Mark off a 7-1/2 x 2-3/16 piece of paper into 5/16 inch squares and copy the pattern. You will need a block 7-1/2 x 1-1/4 x 1 or larger. Carving, of course, is done in the same way.

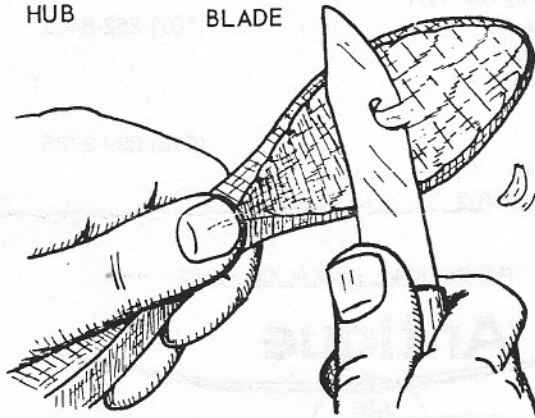
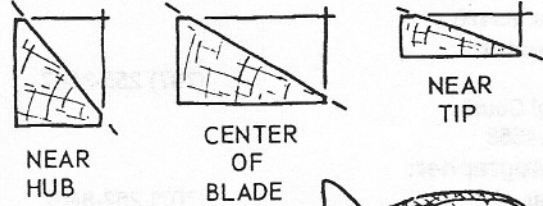




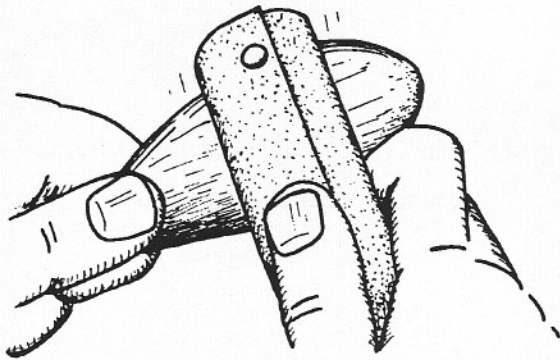
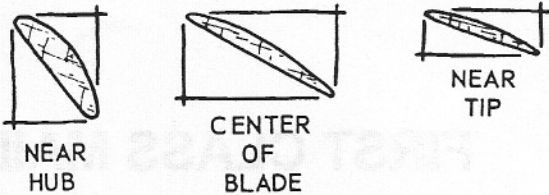
TOOLS AND MATERIALS



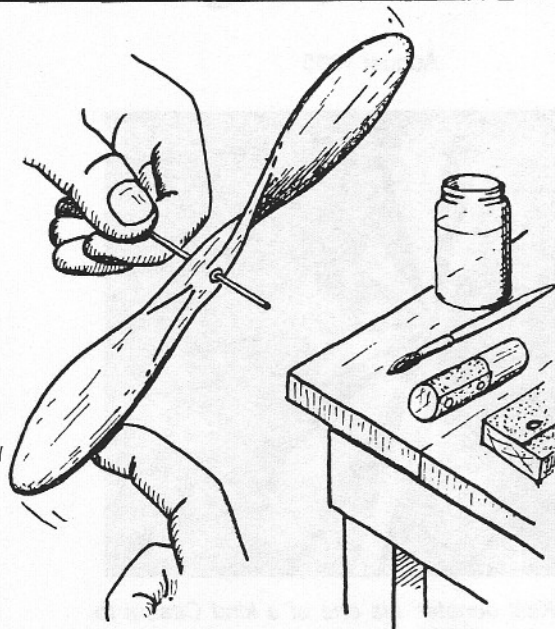
1. CEMENT PATTERN TO BLOCK DRILL SHAFT HOLE, AND SAW TO SHAPE



2. CARVE REAR BLADE SURFACES FLAT



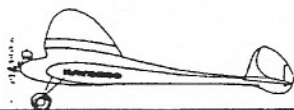
3. CARVE AND SANDPAPER FRONT SURFACES TO AIRFOIL



4. BALANCE AND FINISH



AMChapter #108



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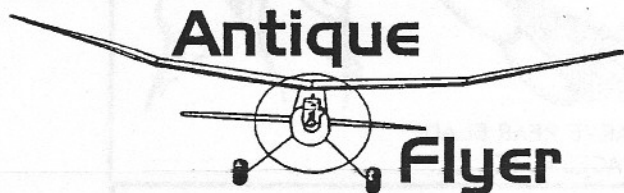
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P.O.Box 8241, Truckee, Ca. 96162



August 1995



Bill Kast donated his one of a kind Citabra to the Junior Old Timer program

John Hlebcar Photo

Membership

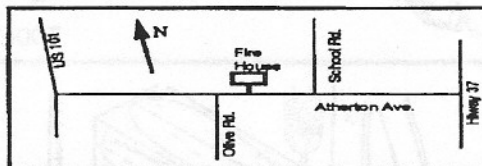
Membership is \$15 for the calendar year. After February, the dues for a new member will be prorated.

Due to increasing cost of publication and mailing, the Associate Member category has been dropped.

Send dues to John Carlson, Treasurer. Make checks payable to SAM 27.

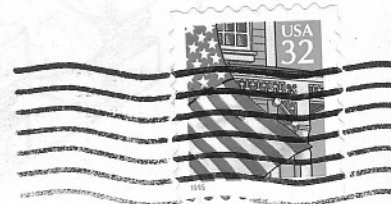
Meetings

Membership meetings are held on the third Wednesday of each month at the Navato Fire Department, Training Room, on Atherton Ave. at 7:30 P.M.



PLEASE ADVISE EDITOR OF ANY CHANGE OF ADDRESS

**Next meeting: Wednesday, August 16, 1995
7:30 P.M. at the Novato Fire Department
Training Room**



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