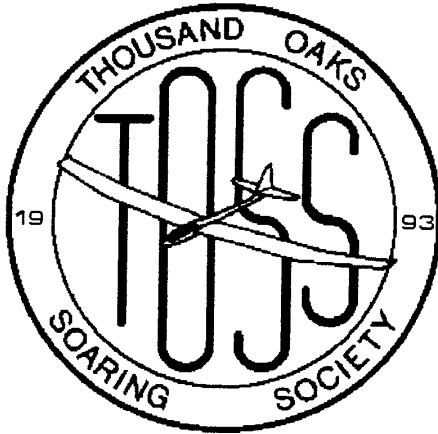


TOSS-UP

Pd Blaine Goodwin
 Pd Michael Reagan
 Pd Keith Kendrick
 Pd Ben Clark
 Pd Skip Miller
 Pd John Spoor



NEWSLETTER

OCTOBER 1993 14705 LOYOLA STREET MOORPARK, CA. 93021

A.M.A. CHARTERED CLUB #1493

PUBLISHER: LARRY JIMENEZ 1943 CHANNEL DR. VENTURA, CA. 93001

PRESIDENT:

Mike Reagan (805) 529-5513
14705 Loyola Street Moorpark, CA. 93021

NOMINEES
BJ WEISMAN

VICE PRESIDENT:

Edgar Weisman (805) 498-8878
752 Camino Valles Thousand Oaks, CA. 91360

MIKE REAGAN

SECRETARY:

Thomas Akers (805) 496-6655
1583 Wakefield Ave. Thousand Oaks, CA. 91360

John Spoor / Sonny Kim
Bob Hsieh

TREASURER:

Mike Leal (805) 529-7535
844 Charles Street Moorpark, CA. 93021

PUBLISHER:

Larry Jimenez (805) 652-1937
1943 Channel Dr. Ventura, CA. 93001

BSWET

MEMBERSHIP: LARRY JIMENEZ

CLUB WINCHES:

Thomas Akers (805) 496-6655
Mike Leal (805) 529-7535
Edgar Weisman (805) 496-0611

NEXT CLUB CONTEST:

DATE: Nov. 14th., 1993
PLACE: Redwood School
TIME: 9:00am
C/D: B.J. & Edgar

NEXT CLUB MEETNG:

DATE: Oct. 27th., 1993
DAY: Wednesday
PLACE: Cameron Center
TIME: 7:30p.m.

Checked
Wingspan

ADD BOY PAPER
INITIAL BOX

money #29
SC #29 \$226.52
Contest

MEETING MINUTES

OLD BUSINESS: NONE

NEW BUSINESS:

Mine Leaf
Landing Tape
Boban
Weisman

1) Several discussions covering various aspects of the November 14 "TOP GUN" contest were held. Topics included equipment availability / status, trophies for Sportsman class, and making sure there is enough helpers. Bob Swet will create a computer program for scoring and will also supply special score cards. BJ Weisman will be the contest director and will provide a 110 VAC generator for battery chargers and computer / printer. We need at least three landing tapes (if you have one in your field box, please let BJ know). The club needs at least 12 people to run the contest.

So everyone...please show up even if you are not going to fly! No experience is required. This will hopefully (needfully) put money back into our empty treasury

2) October is the meeting when club officers are nominated. Anyone can be nominated (elected) whether they are present or not. Elections will be held at the November meeting. Make yourself heard, come on out to the next two meetings.

No
Changes

3) Discussions will start at the next meeting concerning raising the club dues in order to cover annual expenses. We are welcoming any ideas of cutting expenses as well. A suggestion has been submitted to provide a 'Newsletter' only subscription. What are your ideas / opinions.

✓ 4) AMA dues will be increasing to \$42 for 1994.

✓ 5) Results of the F3B World Championship were talked about. Congratulations to Daryll, Joe and the rest of U.S. team on their fine job representing our hobby and country.

✓ 6) Regretfully, Radio Wave Hobbies of Ventura has folded and the remaining inventory was taken over by Red Baron's. Speaking of Bill Hinman, he has decided to retire pending the sale of Red Baron's. We all wish Bill and Joan the best of luck and lets hope that someone else with glider interests purchases our local store.

✓ 7) The "TOP GUN" contest will be considered our regular club monthly contest. We need to discuss how it will scored, i.e. two meter or open or either.

DELTA CUB WORKSHOP

We just had our sixth? workshop at Paramount Ranch on October 9th. I would like to thank all the contestants, helpers / instructors and its sponsors. A fun time was had by all.

The day started with a little twist. It seems the park double booked the "Pavilion" for us and a wedding reception. So we used the picnic tables in the field to build on and the parking lot was used for the fly off. The guy upstairs must have known something was different because the crowd was sized perfectly for the amount of workspace.

All went well. Only a few fingers were glued to the airplanes. No cuts. By the time we were done building and trimming, it was time for the wedding (done in western tradition) in front of the church.

Eight rounds of flyoffs were held with a maximum personal winning of two rounds permitted in order to give everyone a chance to win one of the \$5 gift certificates or a more advanced model airplane. Eventually, we had six different winners. Average flight time was just over twenty seconds.

To conclude the event, a Grand Finale was held where everyone was permitted to participate. The \$15 in gift certificates was won by a young girl named Celeste whose last name escapes me. Our previous champion, Tina Reagan was beat by her own friend by a mere second or two.

A special THANKS is extended to all our sponsors who make this event available free to the public. I would like to spend this moment to welcome Bob Hunter of Satellite City for their generous donation of thick CA and accelerator as our newest sponsor. Starting with this issue, he will receive our TOSS-UP newsletter for one year free of charge. Our appreciation is extended to Marty's Hobbies of T.O for the gift certificates and Red Baron Hobbies of Camarillo for a generous supply of kits.

OCTOBER CLUB CONTEST

This month's contest, a 3.5,7 (pilot's choice) with a 25 foot landing tape was held immediately after the Delta Cub Workshop. Probably due to the timing or maybe because we had to fly from the parking lot (the regular field needs a mowing badly), the number of participants was slightly lower than usual.

It was a good contest with unusually poor thermals present. Weak lift seemed to sucker in some of our favorite flyers. Regrettably Brownie Goodwin, was not able to try his skill. On his first flight of the day, his Legend lost radio contact causing the plane to crash on the hill beyond the tree line at the far end of the field. Thanks to Dane Vannett and his search party, the plane (suffering moderate damage) was found and will be returned ASAP. Otherwise, this was a usual contest with "ho - hum" Mike Reagan winning both open and two meter classes. Sonny Kim won in sportsman.

HELPFUL HINTS

MONOKOTE BACKING

Don't throw away that backing from your Monokote! It can be used wherever you don't want epoxy or CA to stick. One of the applications that I have found is for finishing off fiberglass / nylon cloth.

Apply cloth as normal. Usually, you would apply a heavy second coat of adhesive to fill the weave and then sand it back down to get a smooth finish. Instead, apply just enough adhesive to fill the weave and then place a piece of backing on top. Rub the backing down to eliminate air bubbles and to create a smooth surface.

After the adhesive is fully cured / dried, remove the backing. It should come off easily and leave no residue. You will find that the finished surface is as smooth as the backing. Before placing Monokote on top of that surface, sand with 180 grit sandpaper. It is also advisable to apply Balsarite Film Adhesive to the surface to ensure optimum bonding.

Submitted by Bob Swet

CHEAP VACUUM PUMP

When searching for a cheap, quiet and low pressure vacuum pump for bagging white foam wings, I came up with the idea of converting an aquarium pump. Guess what, with a little ingenuity it worked.

A quick trip to the local KMART produced a dual bellows (for increase volume capacity) aquarium pump for under \$20. After removing a few case screws, the bellows were exposed. These were slipped off from the partitioned chambers and thus permitting access to the flapper

valves and their retainers. Carefully extract the valve retainers so as to not to damage the silicone rubber valves.

Place the valves on the opposite side of the chamber making sure that they fully cover the original hole. You will have to manufacture new retainers from material on hand. I used some 1/8 inch rubber sheet previously purchased at a plumbing store.

Re-install bellows onto the chambers. Fasten enough screws to hold the bellows, chambers and solenoid in place. Plug unit into the AC outlet and watch what happens. NEVER touch or insert a tool into the pump while power is applied. Vacuum / volume can be optimized by adjusting bellow locations and 'tweaking' the 'arms' driving the bellows. Typically, the more the throw / displacement, the higher the vacuum. Replace cover and remaining screws after adjustments. Combining the two "outputs" is accomplished using aquarium tubing and a 'T' adapter. When finished, my unit produced a vacuum of 10 inches of Hg.

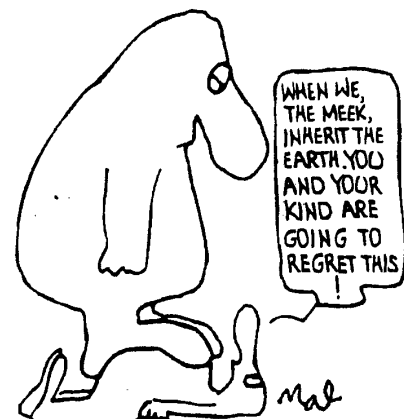
Remember that this will not be of the same volume as many commercial units and needs to be connected to a well sealed system. If a reduction of vacuum is needed, you can use an inexpensive aquarium air valve (connected in series with feeder line with its third fitting not connected to anything).

Good Luck.

Submitted by Bob Swet

SUBJECT TO DISCUSS

Should we and if so, how do we score contest results when we attend another club's contest that occurs the same day as our clubs? How do we get the score from the other club?



| 10/09/93 | | OPEN CLASS STANDINGS | | | | | | | HIGH SCORE = 2942 | | | | |
|------------------|------|----------------------|------|------|------|------|------|-----|-------------------|------|------|------|--|
| P NAME | CLUB | TOTAL | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | |
| 1 MIKE REAGAN | TOSS | 7823 | 941 | 1000 | 994 | 981 | 914 | 0 | 1000 | 993 | 0 | 1000 | |
| 2 BOB SWET | TOSS | 6834 | 624 | 816 | 645 | 947 | 0 | 0 | 958 | 1000 | 905 | 939 | |
| 3 DON NORTHERN | TOSS | 6390 | 799 | 876 | 0 | 0 | 943 | 0 | 958 | 985 | 907 | 922 | |
| 4 DON McNAMEE | TOSS | 6363 | 655 | 880 | 1000 | 944 | 1000 | 0 | 979 | 0 | 905 | 0 | |
| 5 EDGAR WEISMAN | TOSS | 6330 | 888 | 979 | 633 | 938 | 982 | 0 | 959 | 0 | 951 | 0 | |
| 6 B.J. WEISMAN | TOSS | 5963 | 1000 | 986 | 997 | 1000 | 0 | 0 | 980 | 0 | 1000 | 0 | |
| 7 ART McNAMEE | TOSS | 3892 | 0 | 959 | 514 | 935 | 512 | 0 | 0 | 0 | 972 | 0 | |
| 8 LARRY JIMENEZ | TOSS | 3658 | 0 | 742 | 371 | 0 | 0 | 0 | 882 | 953 | 710 | 0 | |
| 9 JOHN ELLIAS | TOSS | 2112 | 722 | 951 | 439 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 10 MYLES MORAN | TOSS | 1890 | 448 | 890 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 552 | |
| 11 PAUL TRIST | TOSS | 1844 | 0 | 0 | 0 | 942 | 902 | 0 | 0 | 0 | 0 | 0 | |
| 12 MIKE LEAL | TOSS | 1562 | 0 | 0 | 0 | 0 | 0 | 0 | 957 | 605 | 0 | 0 | |
| 13 BILL KARP | TOSS | 1534 | 532 | 0 | 0 | 0 | 0 | 0 | 685 | 317 | 0 | 0 | |
| 14 MIKE RATNER | PSS | 947 | 0 | 0 | 0 | 0 | 947 | 0 | 0 | 0 | 0 | 0 | |
| 15 RICHARD BURNS | PSS | 897 | 0 | 0 | 0 | 0 | 897 | 0 | 0 | 0 | 0 | 0 | |
| 16 BEN MATSUMOTO | PSS | 833 | 0 | 0 | 0 | 0 | 833 | 0 | 0 | 0 | 0 | 0 | |
| 17 DANE VANNETT | TOSS | 775 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 775 | 0 | |

| 10/15/93 | | 2 METER CLASS STANDINGS | | | | | | | HIGH SCORE = 2920 | | | | |
|------------------|------|-------------------------|------|------|------|------|------|-----|-------------------|------|------|------|--|
| P NAME | CLUB | TOTAL | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | |
| 1 MIKE REAGAN | TOSS | 7903 | 1000 | 1000 | 952 | 957 | 994 | 0 | 1000 | 1000 | 0 | 1000 | |
| 2 DON McNAMEE | TOSS | 6699 | 873 | 930 | 989 | 955 | 980 | 0 | 978 | 0 | 994 | 0 | |
| 3 ART McNAMEE | TOSS | 3764 | 0 | 880 | 0 | 968 | 916 | 0 | 0 | 0 | 1000 | 0 | |
| 4 EDGAR WEISMAN | TOSS | 3684 | 848 | 0 | 0 | 0 | 1000 | 0 | 935 | 0 | 901 | 0 | |
| 5 B.J. WEISMAN | TOSS | 3070 | 0 | 0 | 0 | 0 | 534 | 0 | 978 | 0 | 884 | 674 | |
| 6 MIKE LEAL | TOSS | 2891 | 0 | 0 | 1000 | 0 | 129 | 0 | 869 | 893 | 0 | 0 | |
| 7 LARRY JIMENEZ | TOSS | 1469 | 0 | 617 | 0 | 0 | 0 | 0 | 0 | 0 | 852 | 0 | |
| 8 PAUL TRIST | TOSS | 1374 | 0 | 0 | 0 | 1000 | 374 | 0 | 0 | 0 | 0 | 0 | |
| 9 BEN M | PSS | 991 | 0 | 0 | 0 | 0 | 991 | 0 | 0 | 0 | 0 | 0 | |
| 10 THOMAS AKERS | TOSS | 930 | 0 | 0 | 0 | 930 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 11 MYLES MORAN | TOSS | 917 | 0 | 917 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 12 RICHARD BURNS | PSS | 907 | 0 | 0 | 0 | 0 | 907 | 0 | 0 | 0 | 0 | 0 | |
| 13 SONNY KIM | TOSS | 784 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 784 | 0 | |

| 10/15/93 | | SPORTSMAN CLASS STANDINGS | | | | | | | HIGH SCORE = 1933 | | | | |
|--------------------|------|---------------------------|-----|-----|-----|-----|-----|-----|-------------------|------|------|------|--|
| P NAME | CLUB | TOTAL | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | |
| 1 SONNY KIM | TOSS | 3000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1000 | 1000 | 1000 | |
| 2 DANE VANNETT | TOSS | 1721 | 0 | 983 | 738 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 3 JIM GEOHAGAN | TOSS | 1447 | 0 | 881 | 566 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 4 DON St. LAWRENCE | TOSS | 543 | 0 | 0 | 543 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

RESULTS OF SWSA SC2 CONTEST OF 9/26/93

| PL | NAME | CLUB | CLASS | SCORE | NORMAL | 1993 TEAM STANDINGS |
|----|---------------|------|-------|--------|--------|---------------------|
| 1 | K. KENDRICK | PSS | EX | 2980.4 | 1000.0 | TPG = 31,379.8 |
| 2 | R. LACKLEY | HSS | EX | 2976.6 | 998.7 | HSS = 31,351.7 |
| 3 | M. REAGAN | TOSS | EX | 2976.4 | 998.7 | PSS = 31,278.3 |
| 4 | J. MARKLE | EDSF | EX | 2973.7 | 997.8 | TOSS = 30,609.3 |
| 5 | D. EDBERG | HSS | EX | 2971.5 | 997.0 | |
| 6 | D. BRANDT | HSS | EX | 2970.8 | 996.8 | EDSF = 30,484.8 |
| 7 | F. SAGE | TPG | EX | 2968.6 | 996.0 | ISS = 29,748.8 |
| 8 | B. J. WEISMAN | TOSS | EX | 2968.1 | 995.9 | NCC = 20,197.5 |
| 9 | J. RODRIGUEZ | ISS | EX | 2966.0 | 995.2 | SULA = 13,542.3 |
| 10 | D. VAN GUNDY | TPG | EX | 2963.6 | 994.4 | |
| 29 | B. SWET | TOSS | EX | 2777.4 | 931.9 | SFVF = 11,952.1 |
| 34 | D. McNAMEE | TOSS | EX | 2645.6 | 887.7 | SWSA = 10,753.0 |
| 42 | M. MORAN | TOSS | EX | 2583.7 | 866.9 | DUST = 909.4 |
| 60 | E. WEISMAN | TOSS | EX | 2319.2 | 778.6 | |
| 66 | T. AKERS | TOSS | EX | 2091.1 | 701.6 | |
| 77 | A. McNAMEE | TOSS | EX | 701.3 | 235.3 | |

ADDING FLAPS TO SIMPLER SAILPLANES

by the Old Professor (emeritus - Tijuana Tech)

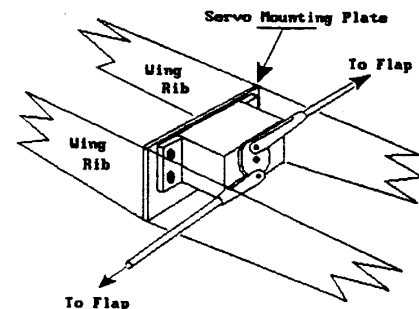
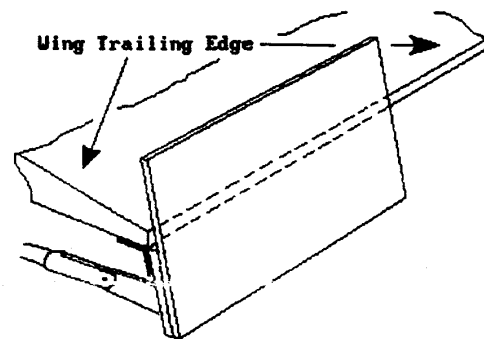
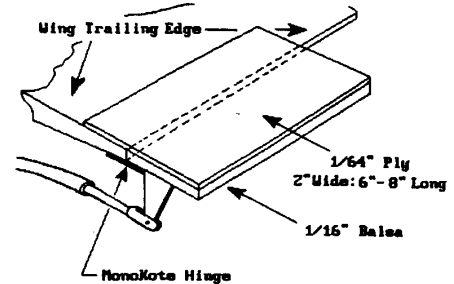
Simple sailplanes were meant to be that way. When you are learning to fly, and building a backlog of experience, it is not desirable to introduce one more control at a critical time - landing.

However, when you get to the top of the Sportsman list and want to experiment with landing control, here's an easy way to do it.

It will require taking the covering off the bottom of the wing to install the drive mechanism. You must also cut away the sheeting (if any) on the bottom of the center section of the wing and make a well for the flap servo. If the wings plug in, then things get more complex.

I think the sketches are self-explanatory. For a Gentle Lady class ship, flaps about 6 to 8 inches long, to start are about right. The installation is so simple that they can be easily changed in size until just right for the ship you are flying. The throw should be adjusted for about 80 degrees down. The nice thing about split flaps (both above and below the wing) is that when actuated, the ship does not pitch up. You can experiment with the ratio of flap above the wing to that below. About 50-50 is a good place to start. If the ship pitches up, add more area above the wing, and vice versa.

The most practical location of the servo is on the bottom of the wing. A mounting well is cut in the center section sheeting. The hinge is Monokote so changes to the flap are easy. Taper the front end of the flap to a sharp edge so it will lie on the wing and the air will pass it smoothly. Do all testing at altitude and deploy the flaps near the ground only when you feel comfortable with the operation.



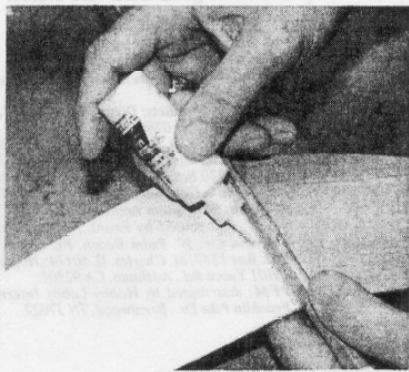
REPRINTED FROM THE
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NEWSLETTER 9/'93

GLUE BASICS

A Sticky Subject

Editor's note: George Wilson has been building model airplanes for 64 years; he has published many construction and how-to articles, and he remains an active model designer, builder and flier. While participating in the R/C Flyers Net (amateur radio operators who meet daily from 6 a.m. to 7 a.m. Eastern Time on 3933KHz), George was struck by the number of newcomers to modeling who were not well-informed about glues (particularly those that were in wide use prior to the arrival of CA). This overview is the result. For more information on the R/C Flyers Net, contact Net-control operator Fred Lomax, 204 S. Claiborne St., Goldsboro, NC 27530.

A small squeeze bottle is essential for holding aliphatic resin glues. Here, a glider wing joint is being reinforced.



by GEORGE WILSON

The author's workbench with more than 15 glues at his disposal.

Photos by E. J. McClary

A WELL-EQUIPPED model workbench should have several types of adhesives/glues on it. There is no such thing as an all-purpose glue, although some ads give you the impression that their product will work on everything. The following are some comments on glues based on my experience.

ALIPHATIC RESIN

The glue I use the most is aliphatic resin. It's sold under names such as Titebond, Sig-bond and Carpenters' Glue. Aliphatic resin gets tacky quickly, and it sets up in about half an hour. (An unstressed assembly can be moved in 10 to 15 minutes.) Several hours are required for a good cure. This glue is water soluble and totally fuel-proof. If you're using aliphatic glue to build a seaplane, coat it with diluted dope or Hobby Poxy* II—a good practice no matter what glue you use. The excess aliphatic that oozes out of a joint can be wiped away with a damp cloth.

Unlike white glue, e.g., Elmer's Glue, aliphatic resin glue can be sanded easily, especially if you wipe the excess away first. White glues are rubbery when dry, they're tough to sand, and they aren't recommended for model aircraft construction. However, when white glue or aliphatic glue is diluted two to one with water, both can be used to attach tissue paper, e.g., silkspan or Japanese, to balsa structures. (While I'm on this subject, Dennison's Glue

Stic is great for attaching light tissue to the framework of rubber-powered models.)

EPOXIES

In my shop, I use epoxies most often as coatings in preparation for finishing and to attach materials such as fiberglass. Yes, they make strong joints but, for me, the nuisance of mixing them and having on hand the epoxy with the proper cure time (5 minutes, 10 minutes or one hour) limits their use to covering and coating, e.g., fuel-proofing engine compartments. Watch for allergic reactions if you use epoxies.

CYANOACRYLATE

Cyanoacrylate glues (CA) have their place in spite of their allergenic properties. The irritant/allergen is acetic acid, which produces a temporary effect. (See "Building Model Airplanes," in the November '91 issue of *Model Airplane News*). For many of us, they can be powerful irritants to the eyes, the sinuses and the lungs. I have a fan that blows across my bench when I'm working with CA. I've tried masks that filter out chemical fumes; they work, but they're awkward. I find them impractical unless I use CA for prolonged periods. *[Editor's note: allergic reactions to epoxy and CA vary widely. Some people readily develop an allergic reaction, and others seem to have no problem after years of using these substances. Don't let these glues come in contact with your skin, and don't breathe in the fumes.]*

CA is the most useful when I want to jig and/or align pieces. Baking soda (non-allergenic) or an accelerator (most often

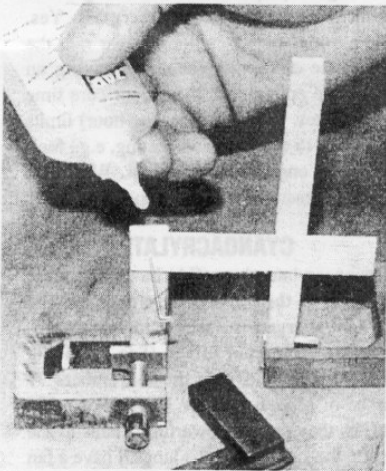
allergenic) helps to set up pieces quickly. More CA or another type of glue can be added to strengthen the joint. You can sprinkle the baking soda on the wet joint or apply CA to a fillet of baking soda.

Water on one or both sides of the joint is also an effective accelerator. CA can also be used to join plastics such as Lucite. The joint is almost invisible when it's done correctly. If you've applied CA where you don't want it, e.g., on your new sunglasses, a good debonder or CA solvent can make all the difference. One of the best, in my opinion, is Golden West* Super Solvent.

The more expensive, odorless CA is on my to-be-tried list but, for now, because I only use small amounts, I'll stick with the less expensive kind and keep on using my fan. [Editor's note: we can vouch for the benefits of the odorless CAs.]

R/C 56

Willhold's R/C 56 glue, available at nearly any hobby shop, works well on plastic to plastic and on plastic to balsa joints. It dries clear, although it's white and water soluble before it



CA (instant glue) is being used to tack a jugged structure together. CA can irritate eyes, lungs and sinuses. (See text.) The odorless variety may solve this problem.

cures. If you apply too much, wipe off the excess with a damp cloth. Don't fret about the film that may surround the wiped area; it will wipe off easily with a damp cloth when it's partially dry.

Use R/C 56 to glue plastic parts (like windows) to doped, polyurethane, etc. finishes. The manufacturer claims it adheres well to most plastic surfaces. It's odorless and appears to me to be non-allergenic. Willhold

doesn't advertise R/C 56 for general usage; however, fellow modeler Ed McCarty has found that it works well for installing pin-type hinges. The plastic-to-balsa joint is very strong, and the excess comes off with a damp cloth.

PLASTIC-BASED GLUES

Plastic-based glues such as butyrate (Ambroid, Sigmament) and nitrate (Duco, Ever Fast) were, at one time, the only glues used to build model airplanes. They still work well, but they dry out over the years, and this makes the structure unairworthy. The glue lasts longer if you pre-coat the joints with glue and let them dry before making the joint.

SOLVENTS AND CONTACT CEMENT

Polystyrene glues (or solvents used as glues) can be used to build and repair polystyrene model airplanes and other polystyrene devices. Testor, among others, makes a good one.

Contact cements are essentially for laminating sheet material, e.g., wood to wood, wood to metal or plastic, or wood to foam. Many of these cements will destroy foam, so make sure the cement you're using is safe. Goodyear's Pliobond makes a very strong joint when it's used as a contact cement.

3M's Super 77 is a spray contact cement that works well for bonding balsa sheet to foam. Note, however, that dark-colored plastic covering exposed to the sun can become loose. **Caution!**—The fumes from spray glues are usually toxic, so wear an air filter (canister) mask.

HEAT-SENSITIVE GLUES

Heat-sensitive glues for models were first used as coatings on the backs of heat-shrink covering; later, they were used to attach coverings that were not pre-coated with adhesive. Micafilm (my favorite covering), Sig's Koverall, silk, silkspan and other uncoated or coated materials can be attached using these relatively low-temperature materials. The liquid glues, e.g., Sig's* Stix-It and Coverite's* Balsarite allow you to position the covering exactly where you want it. These glues are



R/C-56 was used to attach the windows of this Feris JN-1. It's goes on white, but it dries clear and forms a strong bond. A fine addition to the glue family.

fuelproof, and they can be diluted with butyrate thinner. They work best, however, when they're relatively thick.

Like R/C 56, the aliphatic resin glues can also be used in their heat-sensitive mode to join sheet materials. In this case, the glue actually polymerizes, i.e., it makes a molecular bond and is no longer water soluble. This approach can be quite helpful when you're installing windows. The joint is permanent. Coat both surfaces with glue, and

let them dry. Then position them and apply heat with a sealing iron. Move the iron slowly to let the heat penetrate.

FLEXIBLE SUPER-GLUES

These glues can be used with a wide variety of materials, and they remain partially flexible after they set. Use them to attach canopies to a plastic covering such as MonoKote, mount lead weights to a firewall, mount servos to an ARF plastic fuselage, or join batteries in a battery pack. The two brands I'm familiar with are Pacer's Zap a-Dap-a Goo* and PFM*. The strength of the bond of these glues is outstanding.

The products mentioned in this article are not meant to be exclusive endorsements. They are meant to be representative of the glues that I have found useful. There are many brands of glues, and most of them are top-notch. Most of the products mentioned are available at your hobby shop. Others can be found in good hardware stores. I hope this information has been useful.

*Here are the addresses of the companies mentioned in this article:

HobbyPoxy Products; Div. of Pettit Paint Co. Inc., 36 Pine St. Rockaway, NJ 07866.

Golden West, P.O. Box 6400, Woodland Hills, CA 91365.

Sig Mfg. Co., 401 S. Front St., Montezuma, IA 50171.

Coverite, 420 Babylon Rd., Horsham, PA 19044.

Zap a-Dap-a Goo; manufactured by Pacer Technology and Research, 9420 Santa Anita Ave., Rancho Cucamonga, CA 91730; distributed by Frank Tiano Enterprises, 15300

Estancia Ln., W. Palm Beach, FL 33414; **Robart Mfg.,** P.O. Box 1247, St. Charles, IL 60174; **House of Balsa, Inc.,** 10101 Yucca Rd., Adelanto, CA 92301.

PFM; distributed by Hobby Lobby International, 5614 Franklin Pike Dr., Brentwood, TN 37027. ■