

RCM



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MODELER



| | | |
|--|-------------------------------|-----|
| From The Shop | <i>Don Dewey</i> | 4 |
| a friend's trouble with instant glue. | | |
| In Memorial — So Long Sid | | 6 |
| the passing of sid axelrod. | | |
| 4th Annual Stars Scale Rally | <i>G. Privateer</i> | 8 |
| stars rally gets bigger and better. | | |
| R/C Fun At Lake Elsinore | <i>Dick Kidd</i> | 12 |
| rcm goes to a seaplane fly-in. | | |
| RCM Product Report: Byron Originals MIG-15 .. | | 14 |
| rcm builds byron's ducted fan mig-15. | | |
| Original Flying Bat | <i>Ken Kruchek</i> | 22 |
| fun project to match vroom hilda. | | |
| 1981 SAM Championships | <i>Phil Bernhardt</i> | 27 |
| phil covers r/c assist events. | | |
| Le Pou Du Ciel | <i>Randy Wrisley</i> | 33 |
| a flying flea that really flies. | | |
| 1981 Rhinebeck Classic Meet | <i>Henry Haffke</i> | 42 |
| famous annual event in new york. | | |
| Loctite Enters The Model Field | <i>F. Tiano</i> | 46 |
| model adhesives from loctite. | | |
| 1981 NAMBA Nats. | <i>Howard & Bev Power</i> | 48 |
| boat nats in amarillo, texas. | | |
| R/C Car World Championships .. | <i>Gene Husting</i> | 60 |
| 1/8 gas car champs in indianapolis, indiana. | | |
| RCM Product Report: P-51D Mustang | | 65 |
| rcm builds the cmi arf. | | |
| 1981 IMPBA Internats ... | <i>Howard & Bev Power</i> | 66 |
| boat internats in indianapolis, indiana. | | |
| 3rd R/C World Champs. | <i>Al Doig</i> | 74 |
| al reports on sailplane champs. | | |
| R/C Helicopter Nat. Champs. | <i>J. Gorham</i> | 82 |
| john goes to texas for ama nats. | | |
| RCM Product Report: Sig Kadet Junior | | 84 |
| rcm builds sig's small trainer. | | |
| For What It's Worth | | 85 |
| new ideas for you modelers. | | |
| 4th Annual Jumbo Fly-In | <i>Al Alman</i> | 92 |
| report on chuck cunningham's event. | | |
| Showcase '81 | | 96 |
| highlights on new products. | | |
| Readers Exchange | | 204 |
| classified ads. | | |
| Advertisers Index | | 205 |
| advertiser page listing. | | |

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This Month's Cover

Left to right, Michael Finley, Brett Haswell, James Anderton and James Horton of the U.S. Air Force Academy, Colorado, proudly display a "Detroit Miss" P-51D Royal scale model built by Dale M. Alyea. The falcon is a one year old gyrfalcon named Glacier and was captured in Alaska when it was about one month old. Ektachrome transparency by Dale M. Alyea of Pueblo, Colorado.

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FROM THE SHOP

Don Dewey

Our readers will find this issue to be quite a departure from the usual RCM format. Contests, races, fly-ins, nationals; this past summer has probably been the busiest in the history of R/C modeling with major events taking place almost every weekend.

We are devoting this issue to the coverage of a wide variety of events. Coverage has been provided by the following group of talented and/or famous (or is it infamous?) modelers such as Al Alman, Phil Bernhardt, Al Doig, John Gorham, Hank Haffke, Gene Husting, Dick Kidd, Bev and Howard Power, George Privateer.

When the idea of doing an issue of contest coverage was suggested, it sounded like a nice change of pace. Little did I anticipate the problems that would pop out of seeing it to completion. Surprisingly enough, the selection and editing of photographs was the biggest chore. Usually the problem is in having too few photos or the quality isn't good enough for halftone reproductions. Not the case this time, we have scads of very good photos and it hurts every time we have to discard one because each time a photo is eliminated, a modeler or his model will be omitted from print.

Then there are our resident staff members, no way can I keep up with what they are doing. Dick Kidd went to Lake Elsinore for the seaplane fly-in. Rumor has it that he got in a bit of stick time on several of his friends' airplanes. Rumor also has it that he broke one of them and the only answer that he will give is, "I don't want to talk about it." Pat Crews and Dick Tichenor attended the NAMBA Nats in Amarillo, Texas. John Brodbeck and Jack and Rosie Garcia were along with them in our motor home for the trip from Sierra Madre to Texas and return. Their story was mainly about the canine ancestry of the motor home's engine that got sick during the trip across the desert.

After noticing a couple of heat race award ribbons and wanting to know what happened, the answer from Tichenor was either, "I don't want to talk about it," or, "at least I didn't destroy anybody's boat." Sometimes it seems that the Rodney Dangerfield syndrome prevails, "I don't get any respect."

In spite of everything, we are quite proud of the contest coverages that we have assembled and hope that our readers will enjoy them.

★

One of our good friends is building a boat for us which



We can't understand why our Asst. Editor, Dick Tichenor, was driving a boat in the NAMBA Nats. Jack Garcia was calling.

will be a product review. We haven't heard from him for a few weeks until we recently received the following note:

Dear Don:

I've been meaning to give you a call, but something happened a few days ago and now I can't. Talk to you, that is. It's Carl Goldberg again. Well, not really Carl . . . it's that cotton picking glue of his. It all started when I heard that the instant glues can be made to work better on end grain balsa and light ply if the wood was first dampened. Seems that wetting the end grain keeps the instant glue from sinking in too far, and as a result you get a better, faster bond. Well, I've been working on a scale model of a Coast Guard cutter, and the hull is all plywood. Naturally, I come across places where I have to glue end grain and, naturally, some of these joints don't take like I think they should. Then I heard about dampening the wood, and I figured I'm home free. Well, it works great, just like I heard. The first spot with end grain glued up just as if it was welded. Wow, I said to myself, we are now in business. And that's when I made my mistake.

to page 202



ting the ribbon symbolizing the opening of the new Mentor Area Club by courtesy of The Diamond Shamrock Corp. Field dedication under local dignitaries on hand. A mammoth fly-in was the feature of the day.

In Memorial



Sid Axelrod left the world of mortal men on August 20, 1981 and joined the world of the immortals. His great spirit, too long imprisoned in a frail body, now is free to roam the skies and interstellar space of the universe. And you can be sure, as he does so, that, just as he did on earth, he will be helping other spirits --- adjusting the togas of some of the friends he has joined --- Hi Johnson, Mike Schlesinger, Howard McEntee, Glen Sigafoose, Ed Manulkin --- the list goes on and on --- Matty Sullivan, Bob Lien and so many others, and occasionally giving a frustrated angel a hand in trimming her, or his, wings to make it easier to fly. Because that was the way Sid was, and will always be. He loved flying, he loved models, but most of all, he loved to help people. And his spirit will live, and continue to help all of us through the legacy of modeling knowledge that he left behind.

Sid's contributions to the sport of aeromodeling were almost countless. Some of them were enumerated in the nominating papers which resulted in his election to the Model Aviation Hall of Fame. But it was only a partial list. Ask any youngster who passed by the Top Flite booth at any one of the trade shows, and was patiently given a lesson in applying MonoKote by Sid. Ask any modeler who was given a replacement kit at a meet when Sid saw the modeler's dismay after a crash.

How do you say "Goodbye" to a man like that? You don't, because his spirit will live forever in our world of modeling. You just say, "So long, Sid. Thanks for everything. We'll be seeing you one of these days, and go flying together." □

Go Long Sid



Doug MacBrien's one-third scale Drulne Turbulent --- powered by a Quadra --- Doug is from Granby, MA.



Hawker Fury, scratch-built by Don Prentice, St. Catharines, Ontario, Canada --- 84" span, Kloritz powered, 26 lbs.



Norm Wren, Bramalea, Ontario, props his scratch-built Miles Hawk Speed Six. 22 lbs. weight, Quadra powered.



Jim Crawford, Hamilton, Ontario, Canada, with his scratch-built 12' span Porterfield --- weight is 40 lbs.-- powered by a Kioritz --- Rudy Meyer holding.



Kioritz-powered Super Stearman taking off --- weight is 28 lbs.; span is 86 inches --- built and flown by Dick Smith, Rochester, N.Y.



Hughes H-1 --- scratch-built by Bruce Knox, East Aurora, N.Y. --- weight 5½ lbs. --- powered by ST .60 Saturn --- swings 12 x 6 prop --- Kraft radio.



Don Godfrey taxis his B-25 out for take-off on its last flight. Art Schroder, Executive Editor of Model Airplane News, follows.



Don Godfrey's beautiful B-25 taking off on its last flight.

4th Annual STARS SCALE RALLY

By George Privateer
Photos by Lou Eltscher



P-51D, in Invasion stripes, taking off — 26 lbs. — Quadra powered. John Britton, Toronto, Ontario, Canada, is the builder.

paces. Don Godfrey, President of IMAA and a resident of Binghamton, N.Y., showed up with his 1/5 Scale North American B-25 — a 12 footer powered by two Kioritz's and weighing close to 60 pounds.

Because it was overweight, according to AMA rules, a special time had to be set aside for Don to fly and exhibit his craft. The crowd was eager to watch it fly and the green light was set for 3 p.m. He pre-flighted the huge craft and in short order had it airborne. Not too fast, not too slow, it looked magnificent in its scale-like flight.

Then tragedy struck. As Godfrey made a turn to either make a low level pass or land is not known. It never straightened out, but went in, in a shallow dive to total destruction. There is no known cause as yet for its demise but remarks made were that it seemed the same kind of crash that comes when your elevator becomes inoperative. A sad ending to a beautiful ship.

Safety is a strict rule at the Rally. Every plane registered had to undergo a 24 point check list and certification that it had been flown before, successfully, before the Rally. The general public was kept at least 200 feet away from the flying area; each pilot was required to fly "in front of himself."

Engines in use started with .40, .60's, .90's, a lot of Quadras and of

course Kioritz. The planes on the flight line were Pitts, Taylorcraft, Ercoupe, Cub, Miles Hawk, Shoestring Racer, Baby Ace, Citabria, SBD Dauntless, Fleet, SE 5a, PT-19, Starduster, DH Beaver, Globe Swift, Cosmic Wind, Waco HKS-7, Jungmeister, Pietenpol, Nieuport 28, Spinks Aeromaster, P-51, Porterfield, Lau L-2, Laser 200, Nosen Champ, Cherokee Babe, Hawker Fury, Ryan Spirit of St. Louis, Druine Turbulent, Chipmunk, Playboy, F7F Tigercat, F6F Hellcat, Wizard, Hughes H-1, Cap 20, Maule MK 5 and B-25.

Scratch-built and plan-built aircraft seemed to be the largest in number though kit construction seems to be growing. The largest number of ships on the line were Pitts, Cubs, Ercoupes and Fleets.

The frequency most used was Green and White (75,640), and that limited, to a degree, the number of flights one could make on the frequency.

By 1:30 p.m. the concession stand had sold out of goodies and by 2 p.m. the barbecue chicken dinners were also sold out (200 dinners).

It would be difficult to point out distinctive aircraft and it would be foolish to do so --- remember this is non-competitive. The quality of building and finish of the aircraft was very high and attention to detail closely observed.

As darkness fell, Rudy Mayer of Kitchener, Ontario, provided a great deal of interest when he flew his Webra .90 powered Piper Cub with a strobe light between his landing gear and chemical phosphorescent sticks attached to his struts. You could easily see the strobe light but the chemical glow sticks were not too visible.

Sam Frey of Monument Beach, Massachusetts, thrilled the crowd with his low level flying that seemed to defy gravity as well as concern for his ship (not true — he was too skilled for that). Flying his 8½', 12 lb. ST .60 powered Nosen Citabria, he literally looped and rolled his ship just as soon as his wheels left the ground. Low, low, low level passes and rolls left you holding your breath with his dare devil aerobatics.

After dark, with a bonfire, hot dogs and beverages, movies and slides were shown to end a day that was close to perfect.

Notables attending the Rally were John Grigg, President, AMA; John
text to page 202

The Southern Tier Aero Radio Society, Inc. (STARS) held its Fourth Annual Scale Rally at Olean Municipal Airport (N.Y.) on Saturday and Sunday, July 25-26, 1981. For the first time the city fathers permitted full use of the airport facilities by closing down the airport to full scale aircraft during the Scale Rally hours from 10 a.m. to 5 p.m. Because of the desire to associate STARS activities with the general public, the Olean chapter of the Exchange Club was asked to share the responsibilities of holding the Scale Rally and they agreed to do so.

Saturday started out cloudy, overcast and with the threat of rain. The rains held off but it remained cloudy throughout the day.

STARS, Inc., the host club, adheres to the principle that a Scale Rally is just that — a Rally. Because there is no competition, no contest of any sort, no prizes, no awards, there is no need for a registration fee. As a result, any flier bringing a scale ship to the Rally not only registers without cost but is also entitled to a ticket enabling him to partake in a free barbecue chicken dinner prepared by none other than **Chicken Charlie** Nellis, chef par excellence. A concession stand also provided coffee, soft drinks, Italian sausage sandwiches and hot dogs.

Olean (O-lee-ann) Municipal Airport is located approximately 10 miles north of the city on a level clearing atop one of the foothills of the Allegheny mountain range. Visibility is unlimited as the hilltop drops off into valleys all around the airport. The main runway is east to west and black topped and large enough for commercial aircraft to use. A northwest-southeast airstrip is grass covered and well over 2,000 feet long. You couldn't find a more perfect setting or facility to hold such an event.

It is suprising the number of fliers who came in on Friday to set up their trailers in anticipation of the next day's flying. On Saturday (in spite of the not too pleasant day) fliers poured in. A walk along the flight line provided a count of close to 100 scale aircraft shortly before noon. A final tally for the day showed there were 83 registrants and 111 aircraft on display

Flying was basically uneventful with most fliers doing a fine job of putting their aircraft through their



Scratch-built Starduster --- built by Bob Campbell, North Canton, OH. --- powered by a Kioritz --- weight: 38 lbs.



Mahlon Hirsch, Erie, PA, with his scratch-built P-51 --- weight is 10.5 lbs. --- powered by a geared ST-40 --- swings a 15 x 10 prop.



Tom Salvemini, Avon, N.Y., props his Quadra powered Ercoupe --- Messer kit.



Bucker Jungmeister, built from a Platt kit by Al Pollicano, Erie, PA --- Kraft Radio --- Powered by a Maximizer geared 4-cycle O.S. 60. Al is a pilot for USAir.



Fairchild FC-2; scratch-built by George Clapp, Syracuse, N.Y. --- Wingspan, 88" --- weight 11 lbs. --- powered by an O.S..60F SR.



Norm Rosenstock, Plainview, N.Y., with his scratch-built Waco HKS-7 Cabln Bipe --- weight is 33 lbs. --- Powered by a Kawasaki 3.5 engine.



Scratch-built Pietenpol by Tom Rogenski, of Melbourne, FL. Quadra powered --- 21 lbs. weight --- wingspan 96".



Ralph Jackson, Endicott, N.Y., with his Proctor Nieuport 28 --- weight is 18 lbs., wingspan 80" --- Power is a Quadra.

R/C FUN AT LAKE ELSINORE

On Sunday, July 5th, at Lake Elsinore, California, a group of dedicated seaplane modelers gathered at the lake to just fly --- no contest --- no competition.

This gathering occurs two or three times a year and always attracts a large group of spectators, as well as modelers. Many come well-prepared with motor homes, vans and campers; since shade is at a premium, you bring

By Dick Kidd

your own.

Although this is not a contest, it is run in a very orderly manner. Fliers wishing to put their pride and joy in the air are required to sign in on a log sheet. Frequency control is watched closely allowing some modelers to fly from a dirt area behind the vehicles. We did see several scale ships with wheels and a sailplane or two.

Along in the early afternoon, with the temperature rising, the crowd began to disappear. It must have reached 100 degrees when our small group decided it was time to pack up and head for home. Nothing was broken and with many flights completed, we felt it was the end of a perfect day of water flying. If you haven't tried it, do so by all means. It's a whole new world of excitement in R/C. □



A magnificent "Mr. G's" Widgeon built by Al Mayer. Powered by (2) K & B .61's. It weighed in at 13½ lbs.



Al Mayer's Widgeon being taxied for first flight by Taylor Collins. Taylor had some problems getting airborne so decided to try again at a later date.



Harry Apolian lands his 1/4 Scale Bristol M1C "Dead Stick." Very realistic, both on the water and in the air. Powered by an O.S. .90.



1936 Vintage "Scorplon" was designed by Howard Broughton and built by Bud Warren. It sports an Enya .35 and flies like a good thing.



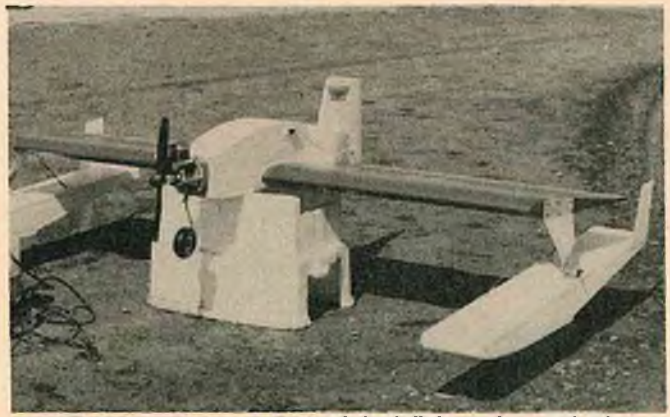
Jim Drever built and flew this TD-Coupe originally published in Model Airplane News in 1936. Jim's model was built from Model Builder plans weighing in at 5½ lbs. with an O.S. .30.



Al Salch's original design shows a tad of Ohlsson's Pacemaker influence. Flies great!



Unknown soldier, but this Citabria was a flying dude.



Joe Techirgi designed this original flying wing and what a performer. Powered by a Super Tiger .60 and all up weight is 9 lbs. Note unusual wing tip mounts for floats.



Butterfly II with Lil Johanna and Senior Falcon in back. All were fitted with Sure Flite foam floats and hopped off the water with ease.



Dick Kidd gets his water flying in without even getting his feet wet. This all happens when you have a good retriever named Keith Kendrick.



Irv Ohlsson was awarded this plaque by Harry Apolan. The water faucet is to keep the lake level just right as being demonstrated by Harry.



To make it complete, this proclamation signed by King Neptune, not only put Irwin G. Ohlsson in charge of water level of lake but also changed name to Ohlsson lake (formerly Lake Elsinore).



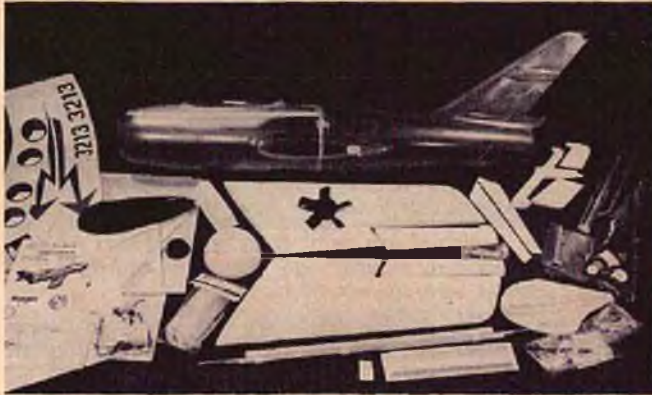
The much talked about Hughes HK-1 flying boat built by the Meyer brothers makes a low pass over the water. It just about takes your breath away just watching this beauty perform.



Even the ultra-light boys had their good times with foam floats. One shown here had just landed and taken off again. Does look like fun!

RCM PRODUCT REVIEW

Byron Originals MIG 15



The idea of building and flying a ducted fan model has intrigued many modelers, but have shied away because early models required a machine shop and machinist's skills to manufacture the needed parts.

Byron has changed all of this by supplying, to the modeler, a ducted fan unit completely molded and machined ready to go for the right price.

The shipping box is rather large, but so is the model — a hefty 12" x 12" x 5' long rugged cardboard box.

Foam cores were well-packaged in their mating nest, balsa sheeting and sticks rubber-banded together, a fuselage sub-assembly that has the two halves joined, main plywood former that will eventually be a part of the wing tongues, the flow straightener mounted, pushrod outer tubes and aileron bellcranks installed inside the fuselage.

Five labeled parts bags were neatly packaged inside the fuselage and, along with all this, there was a complete parts list check-off sheet and a complete inventory list of everything in the separate plastic parts bags.

Two tools were included for the builder's benefit, an Xcelite handle ball driver and an awl for piercing, center punching and construction ease.

Construction:

No plans are included, as a fourteen page, pictured instruction book is included, with a separate sheet showing tuned pipe location, fan location with respect to flow straightener hub, and a tuned pipe data sheet to help modelers choose his engine size and manufacturer.

On close inspection, some of the plastic parts varied greatly in material thickness; the black ABS canopy base was so thin in spots that in some areas it was colorless. When cutting with the X-Acto knife in these areas, it was difficult to cut a true line. More noticeable of this thin section condition was the white ABS nose cone. Much care has to be taken when cutting out the center sections and

SPECIFICATIONS

| | |
|--|--|
| Name | MIG 15 |
| Aircraft Type | Ducted Fan |
| Manufactured By | Byron Originals P.O. Box 279 Ida Grove, Iowa 51445 |
| Mfg. Suggested Retail Price | \$170.68 factory direct \$145.08 (plus \$8.00 ship.) |
| Available From | Both Mfg. and Retail |
| Wing Span | 57 Inches |
| Wing Chord | 10" (Avg.) |
| Total Wing Area | 600 Square Inches |
| Fuselage Length | 55 Inches |
| Stabilizer Span | 22.5 Inches |
| Total Stab Area | 128 Square Inches |
| Mfg. Rec. Engine Range | .60-.61 |
| Recommended Fuel Tank Size | 12 Oz. |
| Recommended No. of Channels | 4 |
| Rec. Control Functions | Rud., Elev., Throt., All. |
| Basic Materials Used In Construction: | |
| Fuselage | Fiberglass, Ply, Plastic |
| Wing | Foam & Balsa |
| Tail Surfaces | Foam & Balsa |
| Building Instructions on Plan Sheets | No |
| Instruction Manual | Yes (14 pages) + supplement |
| Construction Photos | Yes |

RCM PROTOTYPE

| | |
|----------------------------------|------------------------------------|
| Radio Used | R-S 4 channel |
| Engine Make & Displacement | O.S. Max .61 VF |
| Tank Size Used | 12 Oz. |
| Weight, Ready to Fly | 8¼ Pounds |
| Wing Loading | 1.9 Lbs./Sq. Ft. or 25 Oz./Sq. Ft. |

SUMMARY

WE LIKED THE:

Flight performance; overall looks; cavity size for radio installation; ease of cleaning after flying.

WE DIDN'T LIKE THE:

Quality of plastic parts; voids and pits in fiberglass fuselage; written instructions — supplement helped; flying off of asphalt, small rocks were sucked up, damaging fan.

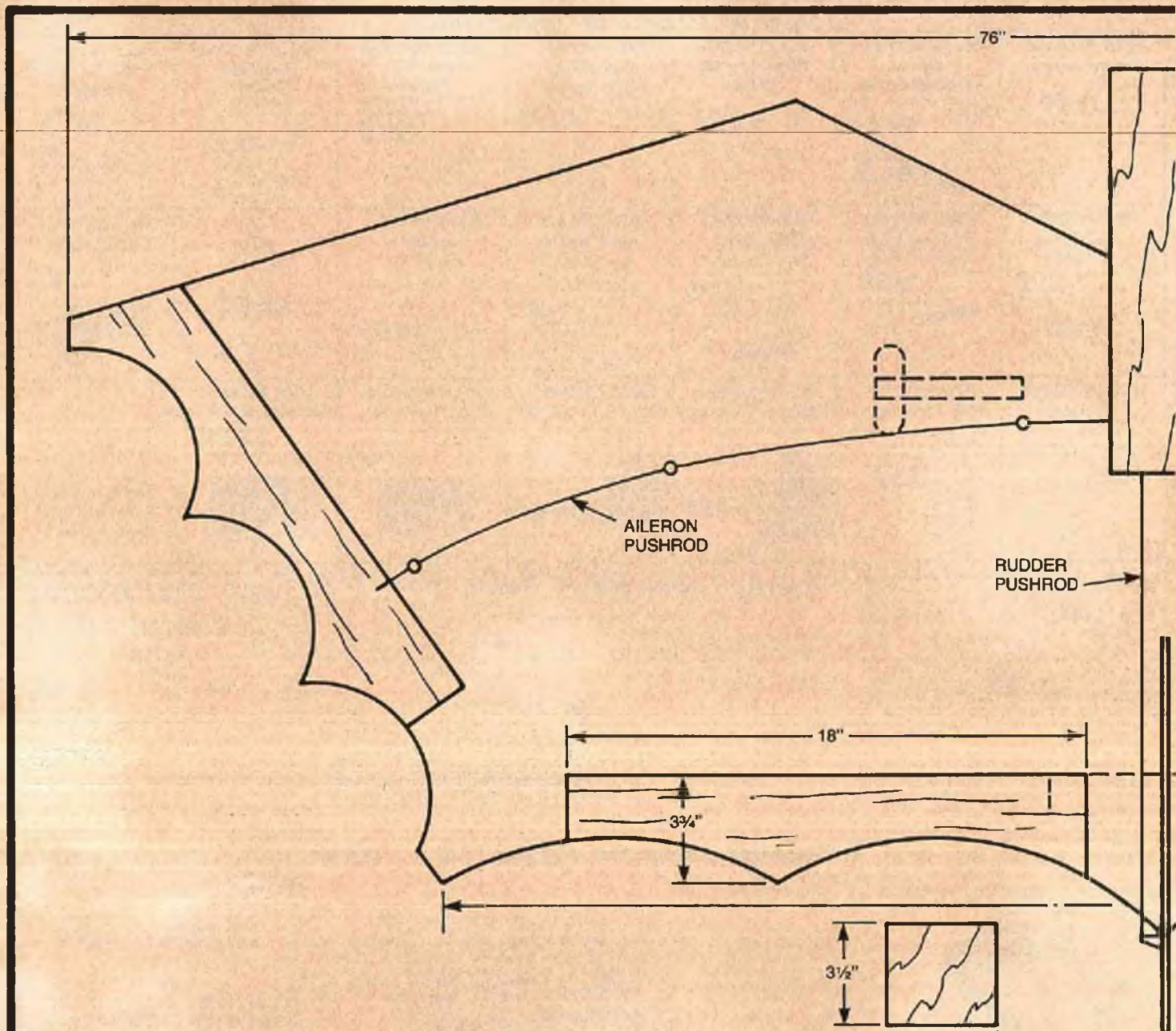
trimming outside diameter.

A complete disappointment that really came to light was the texture of the fuselage outer surface. After following the printed procedure on painting, the surface had many small pin holes that were expected, but pockets up to .100 thousandths in diameter ($1/8" = .125$) was not expected; this caused more filling, sanding and priming. It seemed like the more you sanded, the more larger pores appeared. After three fillings and sandings, it was decided that enough time had been spent on painting preparation. Most of these defects came to the surface around the raised areas of the molded fuselage.

Sanding the Byro-foam cores required the same care as any foam construction project. After filling in recessed areas of stab and wing with 1/16" balsa, which are referred to as spar cores, care had to be taken with sanding the completed assembly. Foam sands faster than balsa, so a heavy hand is not needed. Use a smooth, light stroke and very little pressure.

At this point, some of the instruction pictures were not clearly understood. We feel other modelers were having the

to page 196



SCALE 3/16" = 1"

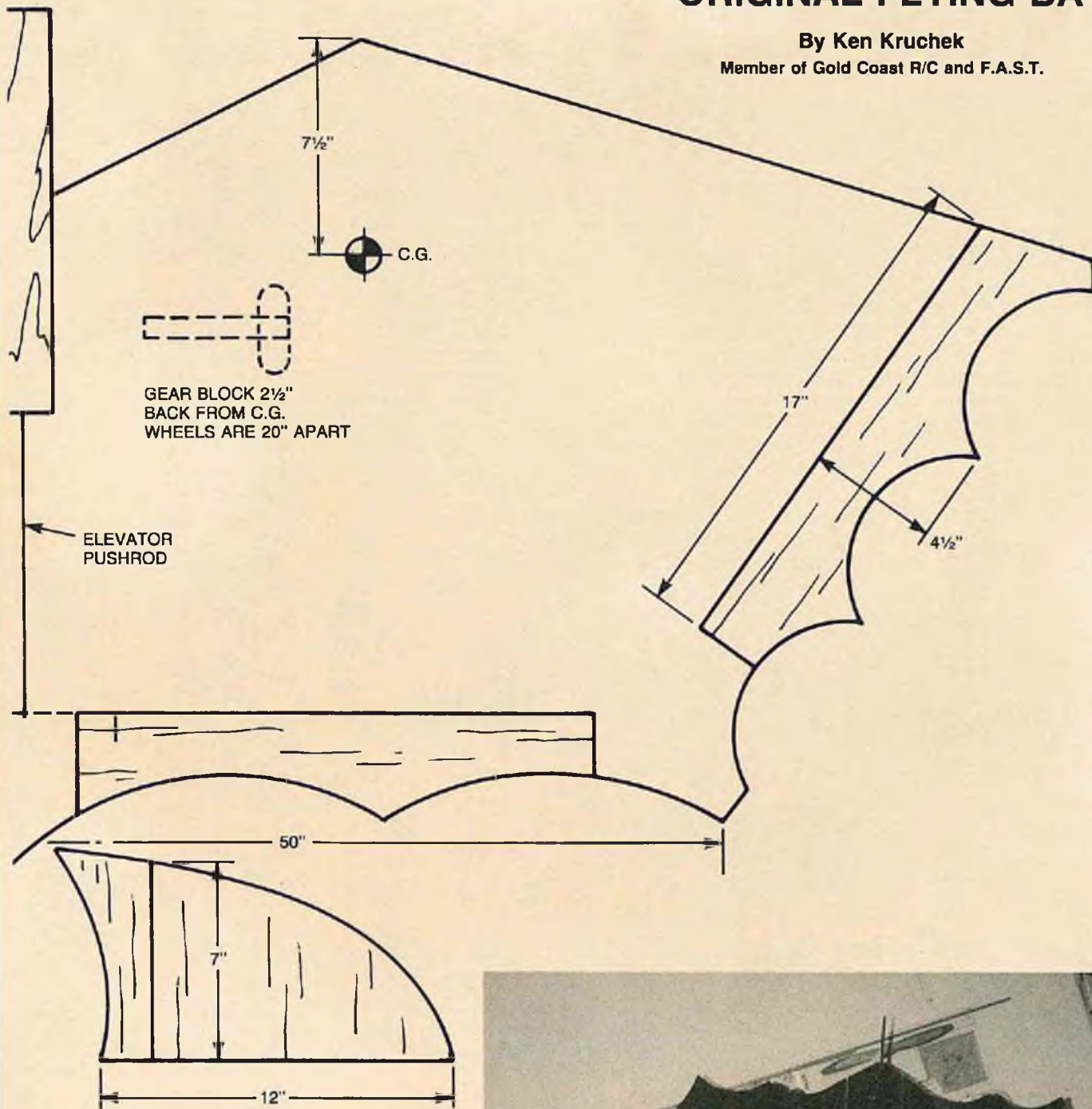
USED WITH "VROOM HILDA"
WITCH BY ART JOHNSON (RCM
10-80)

BUILT FROM 1" POLYURETHANE
SHEET INSULATION BOARD
USING 1/4" SHEET Balsa
RUDDER, ELEVATORS AND
AILERONS. RADIO COMPARTMENT
IS MADE FROM 1/8" LIGHT PLY
USING A DOUBLE THICKNESS FOR
FIREWALL.

ORIGINAL FLYING BAT

By Ken Kruchek

Member of Gold Coast R/C and F.A.S.T.



GEAR BLOCK 2 1/2"
BACK FROM C.G.
WHEELS ARE 20" APART

ELEVATOR
PUSHROD

50"

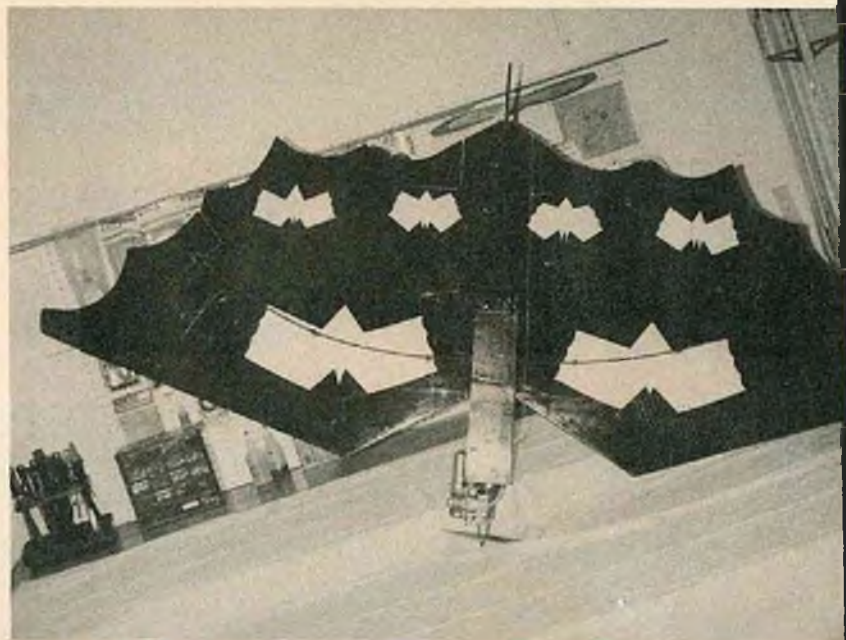
7"

12"

TRICYCLE LANDING GEAR WITH
STEERABLE NOSE WHEEL.

FOUR SERVOS REQUIRED FOR
AILERONS, ELEVATOR, RUDDER
AND THROTTLE.

CAN BE POWERED WITH A .40 TO A
.60 SIZE ENGINE. (PROTOTYPE
NOW USING A .60.)





"It's right up there, dummy!" Charlie Critch points out the Dallaire for John Pond.



Contest Manager Al Hellman's Lanzo Record Breaker was a Texaco entry. Powered by an O.S. .60 4 cycle. Red, white, and blue silk covering.

1981 SAM OLD TIMER MODEL AIRPLANE CHAMPIONSHIPS

By Phil Bernhardt

For the almost two thousand members of the Society of Antique Modelers, the Annual SAM Old Timer Model Airplane Championships is the "Nationals" of Old Timer competition flying, both free flight and R/C. This year marks the 15th running of this major event, which took place on June 30-July 2, at Taft, California, on the famous field that free-flighters regard as "Heaven." Heaven or not, even a visit to the other place would have been a cool relief from summertime Taft --- it was hot out there! Temperatures were well over 100

degrees each day, with a warm breeze in the afternoons. Needless to say, the motel swimming pool sure felt good after a whole day on that field!

Full credit for organizing a successful meet goes to Contest Manager Al Hellman, West Coast SAM Vice President, who is active in both the F/F and R/C aspects of O.T. modeling. Al had originally appointed John Targos, a member of the SAM 49'ers R/C club and a top U.S. pattern judge as well, to be the R/C C.D. at the Champs, but John had to back out at the last minute when he became seriously ill from an insect bite of some sort, leaving his assistant, Otto Bernhardt, to run the whole R/C show.

Otto was not really prepared for this and as a result some things did not go as smoothly as we would have liked; still, for an eleventh hour effort, I think most will agree that things went fairly well.

Many of you readers who have never seen a state-of-the-art R/C Old Timer perform may be under the impression that the models are capable of only moderate performance, that it's mainly a game for old men. **Buddy, you are dead wrong!** The use of Schnuerle ported racing engines and hot fuel (up to 65% nitro) has brought these old ships up to a truly awesome level of performance. One of the most noteworthy in this respect was Bruce

1981 SAM CHAMPS R/C RESULTS

CLASS A (18 entries)

| | |
|--|-------|
| 1. Bruce Norman (Challenger/K & B 3.2) | 20:53 |
| 2. Joe Percy (Playboy/K & B 3.2) | 20:10 |
| 3. Ross Thomas (Playboy/K & B 3.2) | 19:19 |
| 4. Don Bekins (Strato Streak/Cox .15) | 17:29 |
| 5. Richard Huang (Playboy/K & B 3.2) | 16:14 |

CLASS B (19 entries)

| | |
|--|-------|
| 1. James Buice (Playboy/K & B 4.9) | 23:37 |
| 2. Bruce Norman (Playboy/K & B 4.9) | 23:26 |
| 3. Don Bekins (Playboy/K & B 4.9) | 21:00 |
| 4. Richard Huang (Playboy/K & B 4.9) | 19:15 |
| 5. Ross Thomas (Playboy/K & B 4.9) | 18:25 |

CLASS C (28 entries)

| | |
|--|-------|
| 1. Charlie Critch (Ehling/K & B 6.5) | 21:00 |
| 2. Don Bekins (Playboy/Super Cyke) | 20:56 |
| 3. Jack Albrecht (Ehling/Anderson) | 20:22 |
| 4. Joe Percy (Playboy/K & B 5.8) | 19:50 |
| 5. Richard Huang (Playboy/K & B 5.8) | 19:30 |

ANTIQUÉ (26 entries)

| | |
|---|-------|
| 1. Bruce Norman (Cumulus/Rossi .60) | 33:00 |
| 2. Loren Schmidt (Yates Cabin/O.S. .61) | 32:39 |

| | |
|---|-------|
| 3. Richard Huang (Cumulus/O.S. .60) | 30:00 |
| 4. Jack Alten (Dallaire/H.B. .61) | 28:22 |
| 5. Joe Percy (Cumulus/Rossi .60) | 28:02 |

TEXACO (39 entries)

| | |
|------------------------------------|-------|
| 1 Jack Alten (Dallaire) | 84:47 |
| 2. Don Bekins (Gas Bird) | 75:30 |
| 3. Bob Oslan (Commodore) | 56:21 |
| 4. Jim Adams (Experimental) | 51:00 |
| 5. Pete Samuelson (Folly II) | 44:43 |

1/2A TEXACO (28 entries)

| | |
|--|-------|
| 1. Rogers Barton (Buzzard Bombshell) | 28:48 |
| 2. Don Bekins (M-G) | 25:00 |
| 3. Jack Alten (Playboy Jr.) | 24:20 |
| 4. Don Carl (Playboy) | 22:59 |
| 5. Ernie Payne (Lanzo) | 21:14 |

ELECTRIC (6 entries)

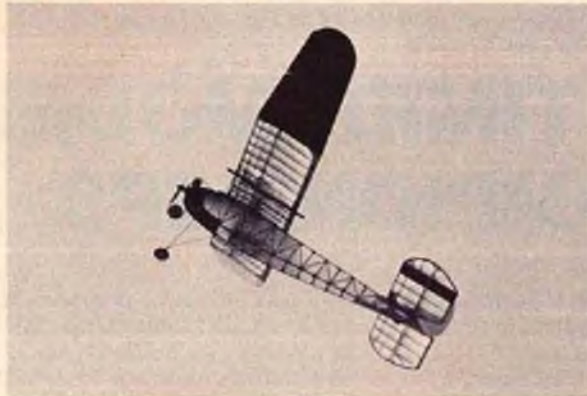
| | |
|-------------------------------------|-------|
| 1. Bruce Norman (Playboy) | 18:08 |
| 2. Don Bekins (Playboy Cabin) | 17:21 |
| 3. Ross Thomas (Playboy) | 15:52 |
| 4. Richard Huang (Playboy) | 15:45 |
| 5. Roland Boucher (Playboy) | 15:25 |



Dave Bruner scaled up the Lanzo Record Breaker 10% to make it SAM-legal for a .60 size engine. A nice flying airplane.



An Enya .35 powered Commodore by Bob Osland placed 3rd in Texaco.



This full size Lanzo Record Breaker by Ernie Payne was powered by a Super Cyclone.



Pete Samuelson flew his 86" span Fotte Westerner in Class B with an Enya .29 and in Class C with an Ignition Super Cyclone.



Three feet and it's already off the ground! Jack Albrecht's Trenton Terror on the way up.



Ted Kafer used FabriKote covering on his Jasco Flamingo.

Norman's Cumulus, pulled by (gulp!) a honkin' Rossi .60. In the Antique event this nine-footer gets a 49 second engine run, after which time it is literally a tiny speck in the sky, on the verge of going O.O.S. Several of the other models are capable of similar performance, and several can max out in dead air with no help from thermals. Moderate performance? No way!

The rules governing the competition flying of R/C Old Timers are somewhat varied and complex, but perhaps a brief rundown is in order here. Basically, there are five standard events: Classes A, B, C, Antique, and Texaco. The A, B, and C

events are limited to models of pre-1943 vintage and this is where you find the really high performance ships (mostly Playboys . . . in fact, you'd almost swear these were one-design events by the number of Playboys that show up at contests). Engine runs vary from 20 to 40 seconds, depending on the type of engine used, with a max flight time of seven minutes. (By the way, a real threat to the Playboy's domination of these events is the Brofman-designed Sunduster currently being explored by SAM 49'er Ross Thomas . . . a very impressive machine. I was also glad to see Charlie Critch and Jack Albrecht place 1st and 3rd respectively in Class

C with my favorite Old Timer, Frank Ehling's 1937 Contest Gas Model.)

Antique is a similar event except that the models must have been designed prior to 1939. Here the airplanes are typically larger and heavier than those flown in the ABC events described above and thus need more than just a few seconds to reach a reasonable altitude, so the engine runs are decided by the model's weight; seven seconds per pound for glow and ten seconds per pound for ignition engines. A max flight is ten minutes.

Texaco models are also limited to pre-1939 designs. This is really a

text to page 190



Steve Roselle (right) gives Don Caril a hand with his pretty yellow and white Dallaire. Files nicely with a Forster .99.



Half-size Lanzo Record Breaker makes a good choice for 1/2A Texaco. Bill Cohen's model shown here.



Electric filers, from left: Roland Boucher, Ross Thomas, Richard Huang, Don Bekins, and John Pond. Not shown is Bruce Norman, who was out flying when this photo was taken.



A top-notch performer is Ross Thomas' Sunduster, a 1942 design by Jerry Brotman. K & B 6.5 makes for rocket climb.



Yep, that's a Rossi in there! Bruce Norman's Cumulus.



Class C winner was this beautifully built Ehling by Charlie Critch. Power is a K & B 6.5.



The sole foreign entry, Englishman Ken Hinton, with his colorful Class B Zipper. Power is a 1949 Amco diesel.



Another Ehling, this one by Kraft Systems' Jack Albrecht (left, hiding under hat). Jim Buice holds on for dear life.



Maxine Thomas with hubby Ross' good flying Shereshaw Cloud Cruiser. Model features an all-flying stab.



Jack Albrecht poses with his K & B powered Trenton Terror, built during the week before the meet. Excellent climb, glide not so hot.



Woody Woodman cranking up the Forster .29 in his Playboy, Joe Beshar holding. Woody has been the R/C C.D. at many past SAM Champs.



Mr. Leisure Electronics, Roland Boucher, shows off his Electric entry, a 67" Playboy.



Close-up of the McCoy .60 in Thomas' Cloud Cruiser.



Ed Konefes, whose brother Joe originally designed the famous Buzzard Bombshell, flew a Cloud Snooper in Class C. Brown Jr. power.



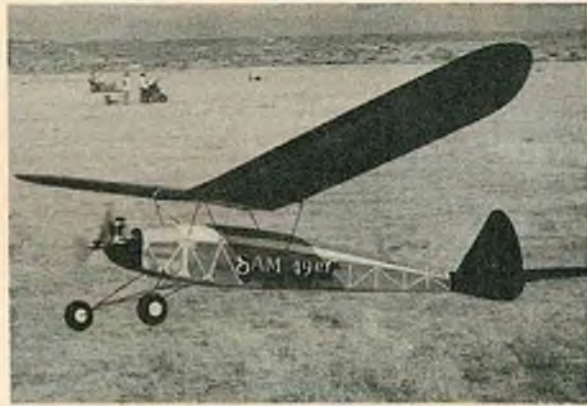
R/C C.D. Otto Bernhardt meters out fuel for Joe Percy's Texaco entry, a Riser Rider with O.S. 4 cycle.



Tom Morrison tuning the Super Cyke in this Turner Special. Not really competitive, but it's nice to see something different.



Charlie Critch's Texaco entry was this gorgeous Dallaire, one of several entered. Fairly simple structure and an excellent performer.



Tom Kulp's Big M-G gets off and away. Nine pounds of beauty.



If there was an award for the most realistic flying Old Timer, Skip Robb's Quaker with Salto .40 would have won it hands down.



Still another Playboy, this one built from a Tyro Models kit by SAM President John Pond.



Bruce Norman of Texas flies this 11% scaled-up Cumulus in Antique. A very potent machine.



Second place in Texaco went to eventual Sweepstakes winner Don Bekins and his monster 1937 Gas Bird, pulled by an O.S. .60 Ignition conversion.



A 48" 1/2A Texaco entry built from 1938 Zaic Yearbook by Phil Bernhardt.



A real shame. A few seconds ago this was Jack Swalm's orange silk covered Super Buccaneer, a victim of an engine backfire. Only the wing and engine survived.

LE POU DU CIEL



Now you can enjoy flying a model of the most unique classic homebuilt aircraft ever designed.

By Randy Wrisley

The 1930's might truly be called the decade of the home-built aeroplane. Lindy had flown the mighty Atlantic, and interest in aviation was at an all-time high. Around the world men pulled strange contraptions out of barns and workshops to try their wings. In America, Ed Heath and Bernie Pietenpol, among others, designed lightweight, low-powered aircraft. Many pilots got their first aerial view of the pasture from such a platform.

In France, a man named Henri Mignet was determined to design a safe home-built. It seems Henri was far from a born pilot and wanted something even he could fly! He believed the greatest danger in flying was the stall, so his machine must not be capable of doing that. After three years of trial and error failures, the strangest of all contraptions clattered into the air, Henri's Pou Du Ciel.

The Pou was a tiny creature, spanning barely 17'. With a length of only 12', it was almost toy-like. The entire main wing pivoted up and down for pitch control and there were no ailerons. A 17 horse, 2 cylinder inline engine provided enough noise to get airborne. Henri's flight tests proved

his Pou couldn't stall or spin. Deep in his heart, Henri felt his beloved Pou was the safest aeroplane in the world.

Henri published a book of plans titled "Le Sport De L'Air." Would you believe it sold 6000 copies the first month? The Pou gained rapid popularity. At one point, over 500 were known to be under construction. Many people built their Pous in thirty days, then took it out to the pasture and taught themselves to fly it. Being so fast building, inexpensive, and easy to fly, it looked as though Henri's Pou was indeed the answer to the average man's quest for flight, well almost!

It must have been Henri's inability as a pilot that led to the Pou's design defect. Henri carefully never called his beloved Pou an aeroplane, always a Pou. He even stated on more than one occasion, aeroplanes frightened him. His creation neither looked like an aeroplane, nor flew like one. In 1935, the first of 11 fatal accidents claimed a Pou pilot. The aircraft tumbled into a dive and never recovered. Most of the pilots who were killed had experience in conventional aircraft. Investigation revealed that if a Pou were put into a dive and the angle got steeper than 15 degrees,

LE POU DU CIEL (Flying Flea)

Designed By: Randy Wrisley

TYPE AIRCRAFT

Sport Scale

WINGSPAN

66 Inches

WING CHORD

14 1/4 Inches

TOTAL WING AREA

812 1/2 Sq. In.

WING LOCATION

Parasol Wing

AIRFOIL

Undercambered Reflex

WING PLANFORM

Constant Chord Center

Elliptical Tips

DIHEDRAL EACH TIP

3 3/8 Inches

O.A. FUSELAGE LENGTH

36 Inches

RADIO COMPARTMENT AREA

More Than Ample

REAR WING SPAN

42 3/8 Inches

REAR WING CHORD

13 1/4 Inches

REAR WING AREA

445 1/2 Square Inches

REAR WING AIRFOIL

Undercambered Reflex

REAR WING LOCATION

Top of Fuselage

REAR WING DIHEDRAL

2 1/4" Ea. Tip

RUDDER HEIGHT

12 3/4 Inches

RUDDER WIDTH

7 1/2 Inches

REC. ENGINE SIZE

.30-.40

FUEL TANK SIZE

4 Oz.

LANDING GEAR

Conventional

REC. NO. OF CHANNELS

3

CONTROL FUNCTIONS

Rud., Throt., & Wing Pivot

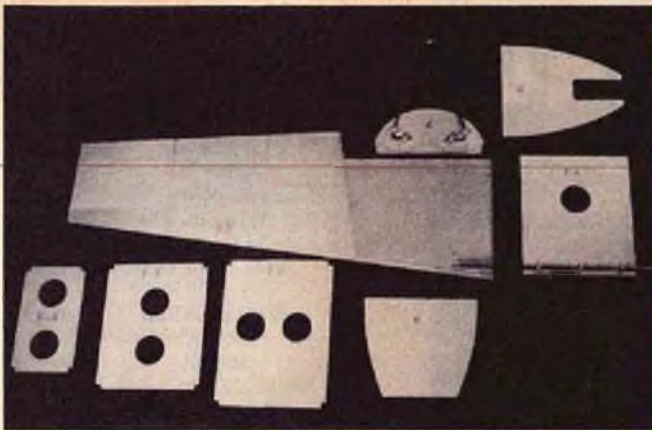
BASIC MATERIALS USED IN CONSTRUCTION

| | |
|------------------|----------------------|
| Fuselage | Balsa, Ply, Lite Ply |
| Wing | Balsa, Ply, & Spruce |
| Empennage | Balsa, Ply, & Spruce |
| Wt. Ready To Fly | 88 Oz. |
| Wing Loading | 10.06 Oz/Sq. Ft. |

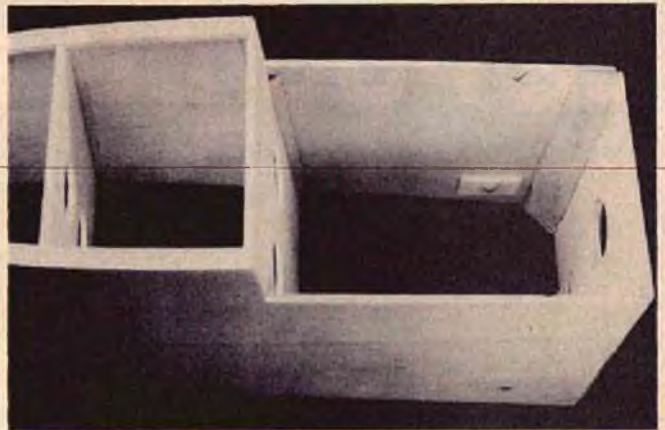
there could be no recovery. The slot effect so vital to pitch stability vanished when the nose went down. Pivoting the main wing created a venturi effect which helped the rear wing lift better. Most likely Henri never discovered the problem because he couldn't sense a stall and felt no need to put his Pou's nose down! Experienced pilots weren't so lucky. Pous were quickly banned by most European governments and slipped into obscurity.

But what of Henri? He and his staff worked hard to solve the Pou's problem. In the end, a new airfoil, some rigging changes and, eventually,

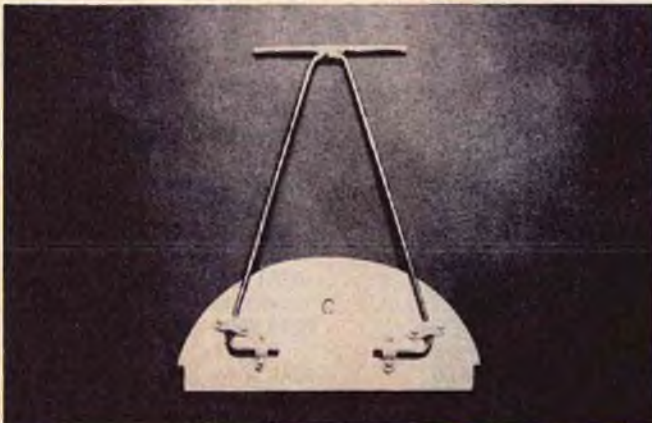
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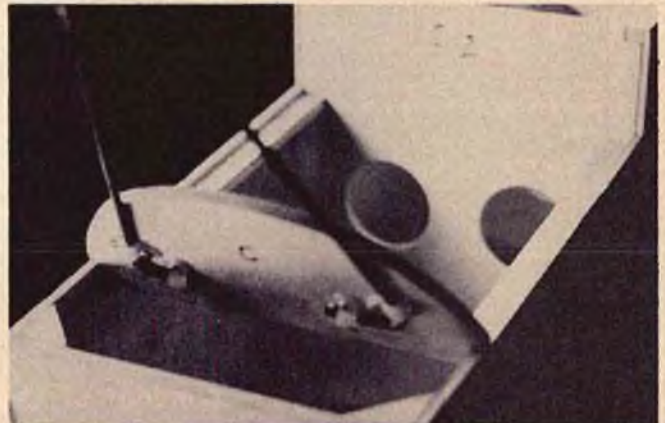
Basic fuselage parts with some sub-assemblies completed.



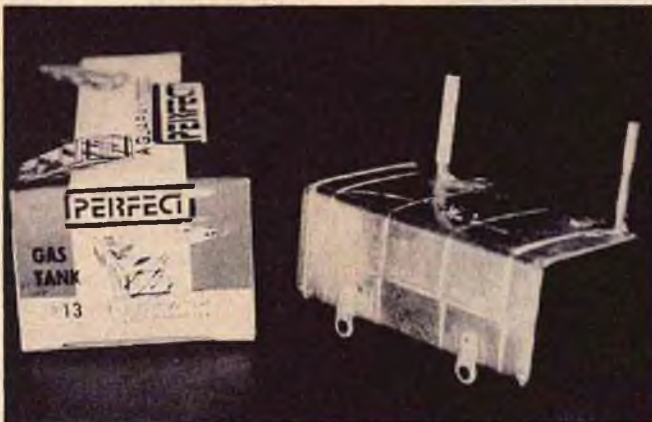
Front end of fuselage with spruce bearing blocks in place for wing pivot control horn.



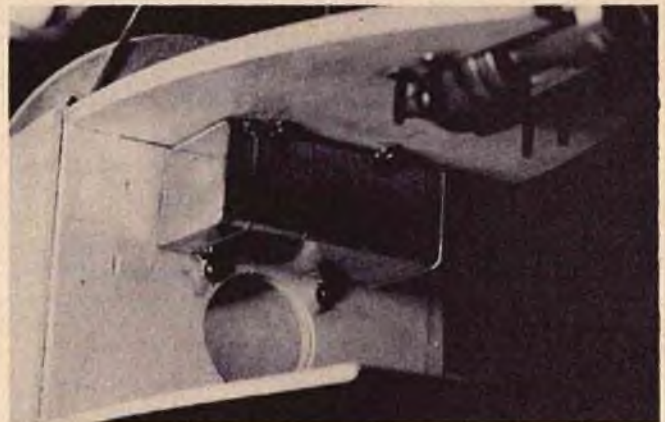
1/8" music wire rear cabane struts bolted to former "C" with 1/8" Sig L/G clamps.



Former "C" glued in place. Be sure to check angle against plans.



Prototype model used a modified metal fuel tank (Perfect #13) with mounting tabs soldered on.



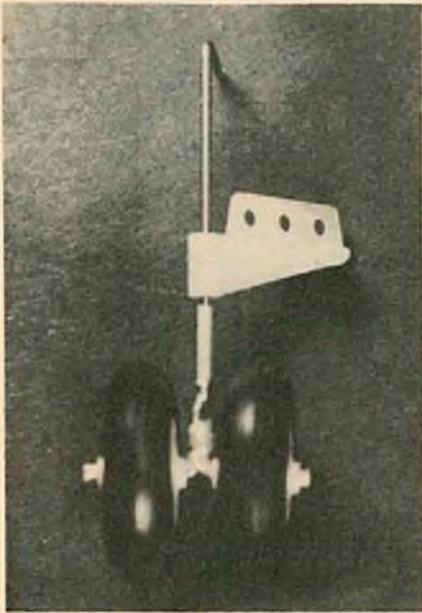
Tank fits very nice under engine mounting plate. Plastic tank would work just as well.



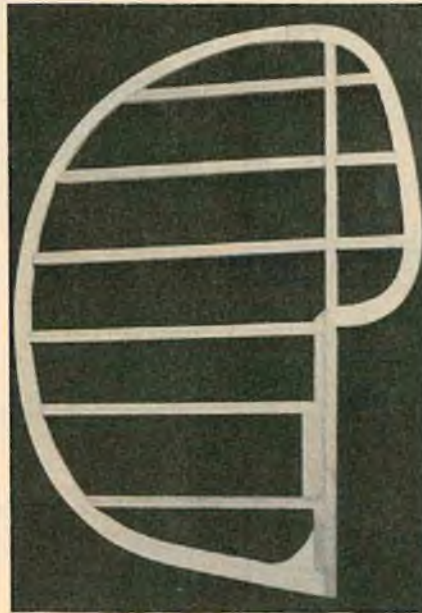
Former "B" is base for battery pack and receiver. Note fuel tank vent and filler tubes thru former "A".



Close-up of cabane struts showing the pivot attachment to the wing. This system works very well.



Tail wheel assembly using dual wheels and Goldberg tail wheel bracket.



Completed rudder built from 1/4" balsa.



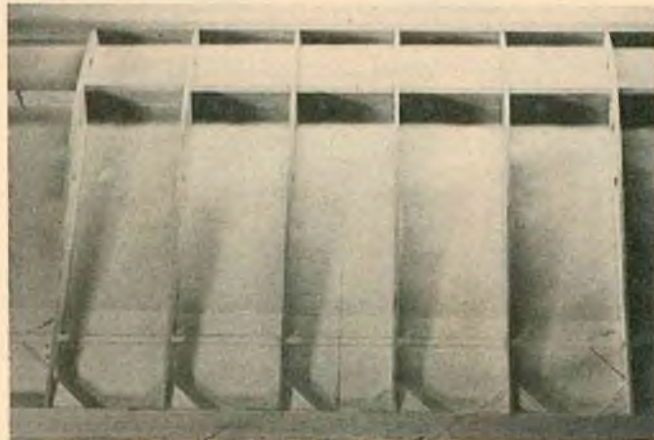
Rudder and tail wheel assembly installed to fuselage.



Wing spar should be cut very accurate before final gluing. Check angle against plan layout.



Wing spar glued and ready to start wing assembly.



Wing is started by building flat center section first.



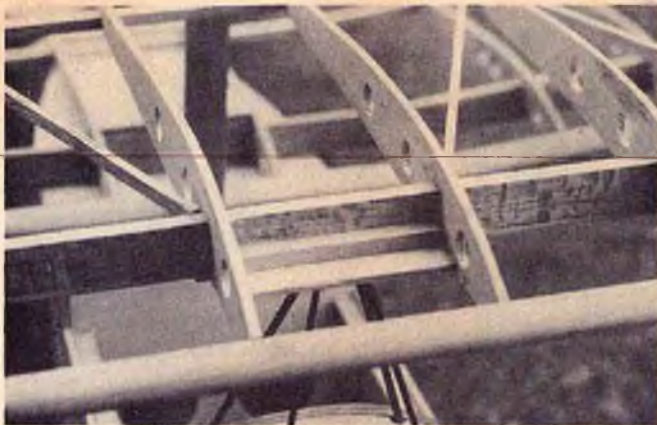
Spar is aligned at tip and held in place. T/E of rib is blocked up to match front spar.



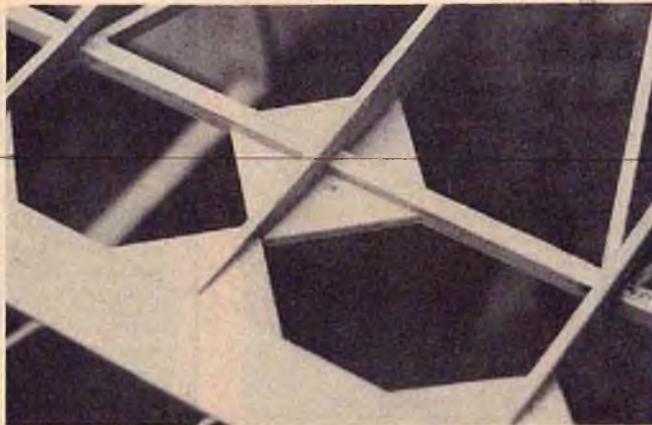
Tip panel is completed, making sure T/E stock is straight and true.



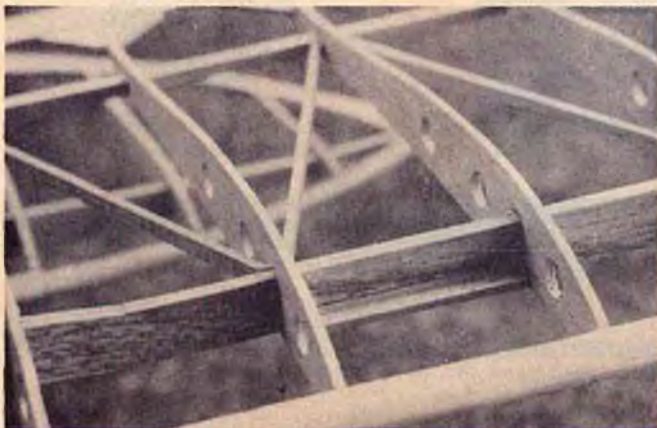
Tip pieces are cut and glued in place, then last tip ribs are installed.



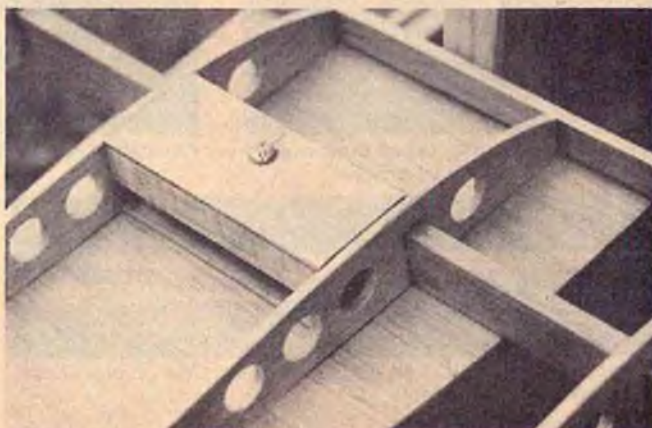
Center section of top wing showing ply plate for cabane struts pivot bracket.



Plywood control horn gusset for attaching nylon control horn on top wing.



Plywood plates built into wing for attachment of rigging wires.



Front wing mounting screw with ply reinforcement plate on top of rear wing.



Cockpit area showing the excess room for the three req'd servos.



Wing pivot control horn with linkage going to top wing.



Small Goldberg nylon control horn on top wing for pivot control.

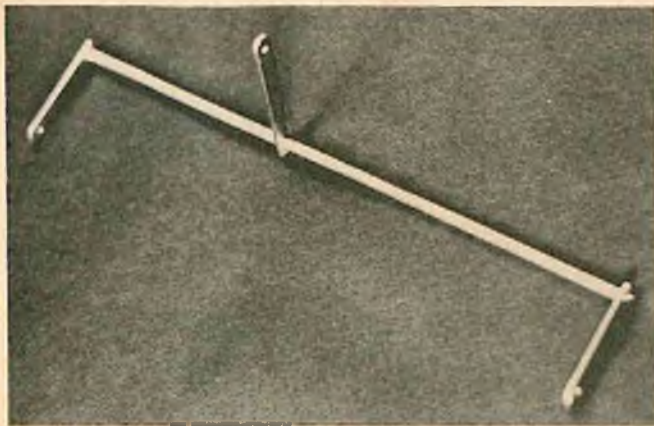
an elevator working with the main wing solved the tucking tendencies. However, the damage was done and while Henri continued to promote his dream until his death in 1965, the public never showed much interest.

I've always felt the Pou had possibilities as an R/C model. The aircraft had more character and personality than the law now allows! Since Henri's goal was simplicity, the model had to be easy to build too. First I located a set of plans for a 1" Scale

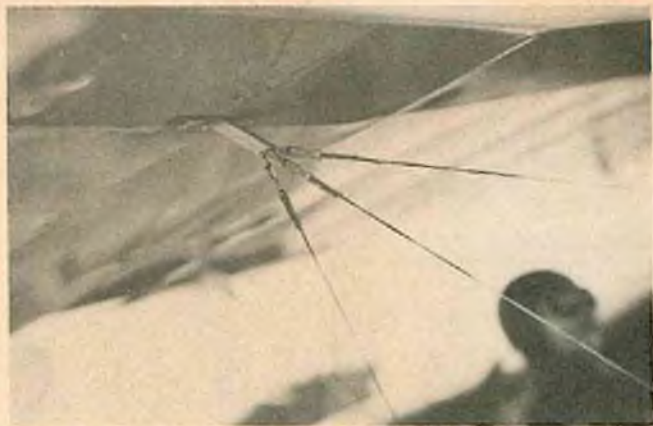
Pou drawn by Ken Hamilton back in the 1930's. This British version had a 22' wingspan and a 30 horse Ford automobile engine for power. G-ADMH had a cowl around the engine making the model's nose much easier to build. I was most fortunate to run into Mr. Hamilton at a free-flight scale contest shortly after I obtained his plans. I picked his brain for ideas and he proved most helpful. I'm not ashamed to admit, my Pou is scaled from his great drawings! Thanks,

Ken! Next I contacted Bill Hannan, regarding color information and anything else that would be helpful. Now I was armed with as much information as possible, so on to the building board.

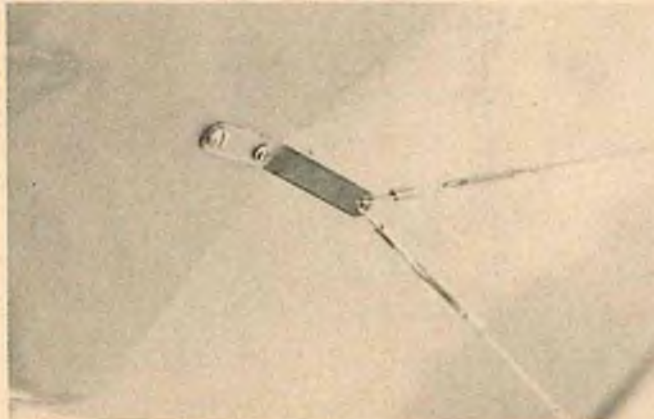
The first Pou was built in three days. (I didn't want to waste too much time, just in case.) Tipping the scales at 33 ounces, this 2" Scale Pou was first powered with a Fox .15. The first flight was like that of an Atlas missile, in slow motion! The Pou stood on her



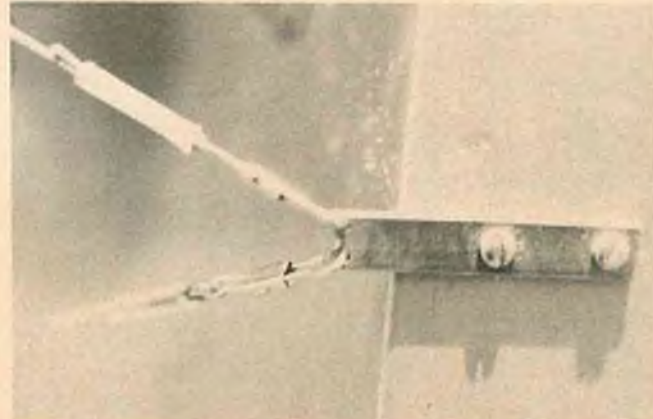
Wing pivot control horn before installation. Final soldering after installation.



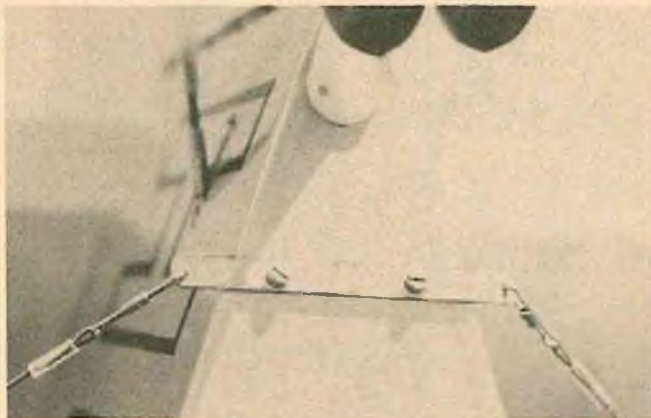
Brass plate bracket on top wing for attaching rigging wires.



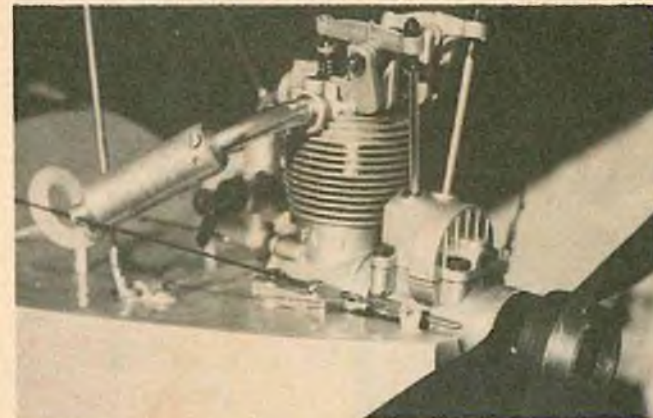
Brass plate bracket on rear wing for attaching rigging wires.



Brass plate bracket on bottom of mid-fuselage. Contains one rigging wire from top wing and one from rear wing.



Brass strap across fuselage bottom at tail wheel. One rigging wire on each side from rear wing.



That Saito .30 was just made for this type of aircraft. Note rigging wire attach point at front of engine.

stubby tail and climbed at about a 45 degree angle. Instinct told me to chop the throttle, so I did. That wonderful, reliable old Fox promptly quit cold, and I discovered another problem. Seems I had about 1/2" too much positive incidence in the main wing! I chose to stay with the pivoting wing for pitch control and was now holding full down on the transmitter stick. My Pou just weather-vaned and flew backwards, bobbing up and down but never stalling. The landing was uneventful, taking place about 20' behind the launch point. The .15 was quickly replaced with an Enya .09!

Experimenting with the angle of the

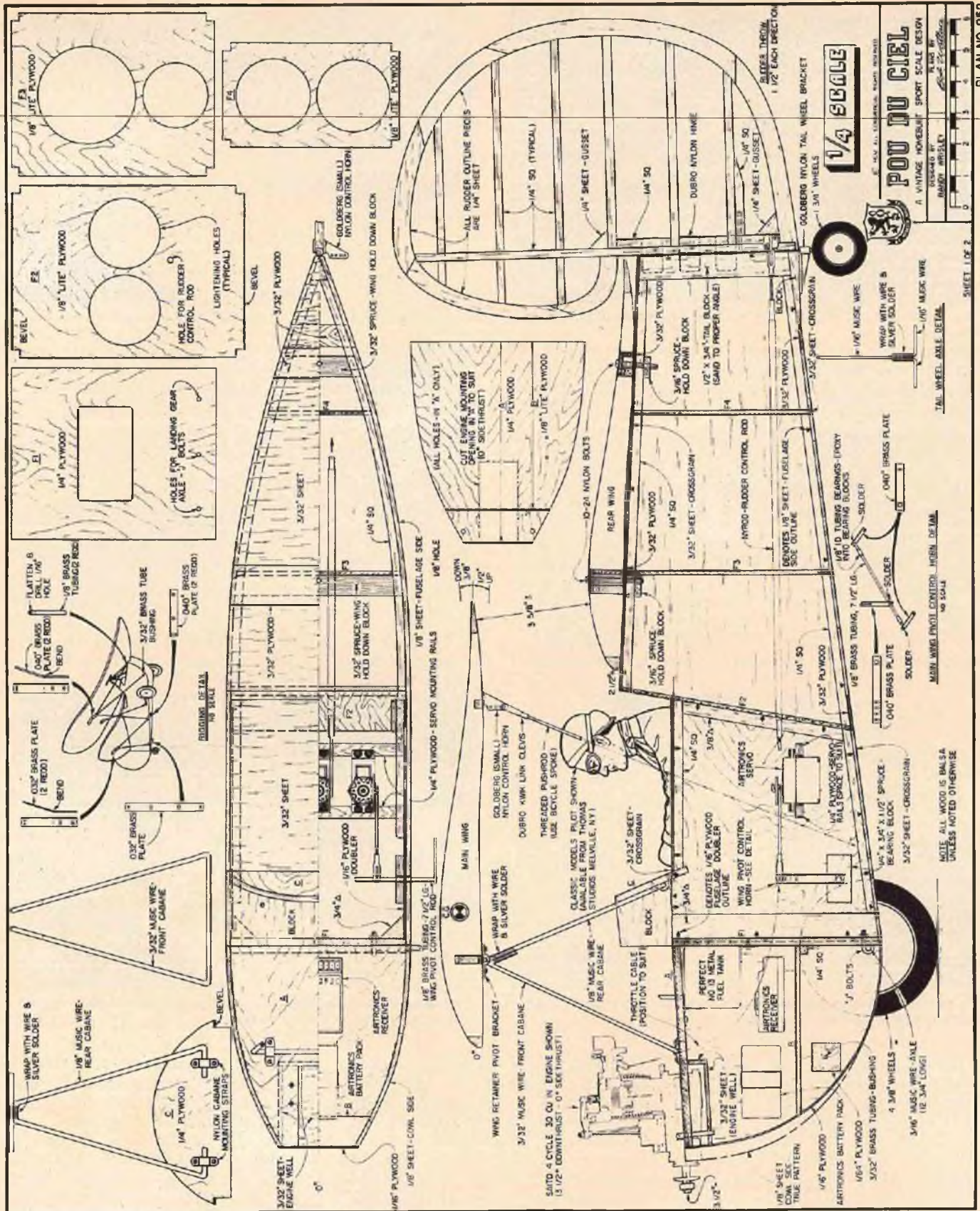
main wing taught me I could live with too much positive, but a Pou won't stand for too much negative. With very little effort really, I had this bug flying so well I was sorry I didn't take more time building it. I feel a modified airfoil, more reflex in the rear wing, and a more forward Center of Gravity solved the design problem from a model standpoint. At least that's what worked for me. Yes, a Pou will still tuck, but it takes real effort. If you hold down-wing long enough it will go down. Unlike its full size counterpart, however, yours will recover if you apply up! Once you get used to flying it, you will find out, just like Henri did,

it's not necessary to put the nose down. Since Quarter Scale models are the rage, I enlarged the Pou to that size. Believe me, it flies just as well, if not better. So build it light, don't over-power it and, for gosh sakes, get the incidence angles right! If you follow those guidelines, yours will fly as good as mine does, so let's build one!

CONSTRUCTION

Fuselage:

Begin by cutting two identical sides. Select lumber that is flexible, but not so soft as to dent easily. Mark the former locations with a felt tip pen to prevent scoring across the grain. The 1/16" plywood doublers are installed



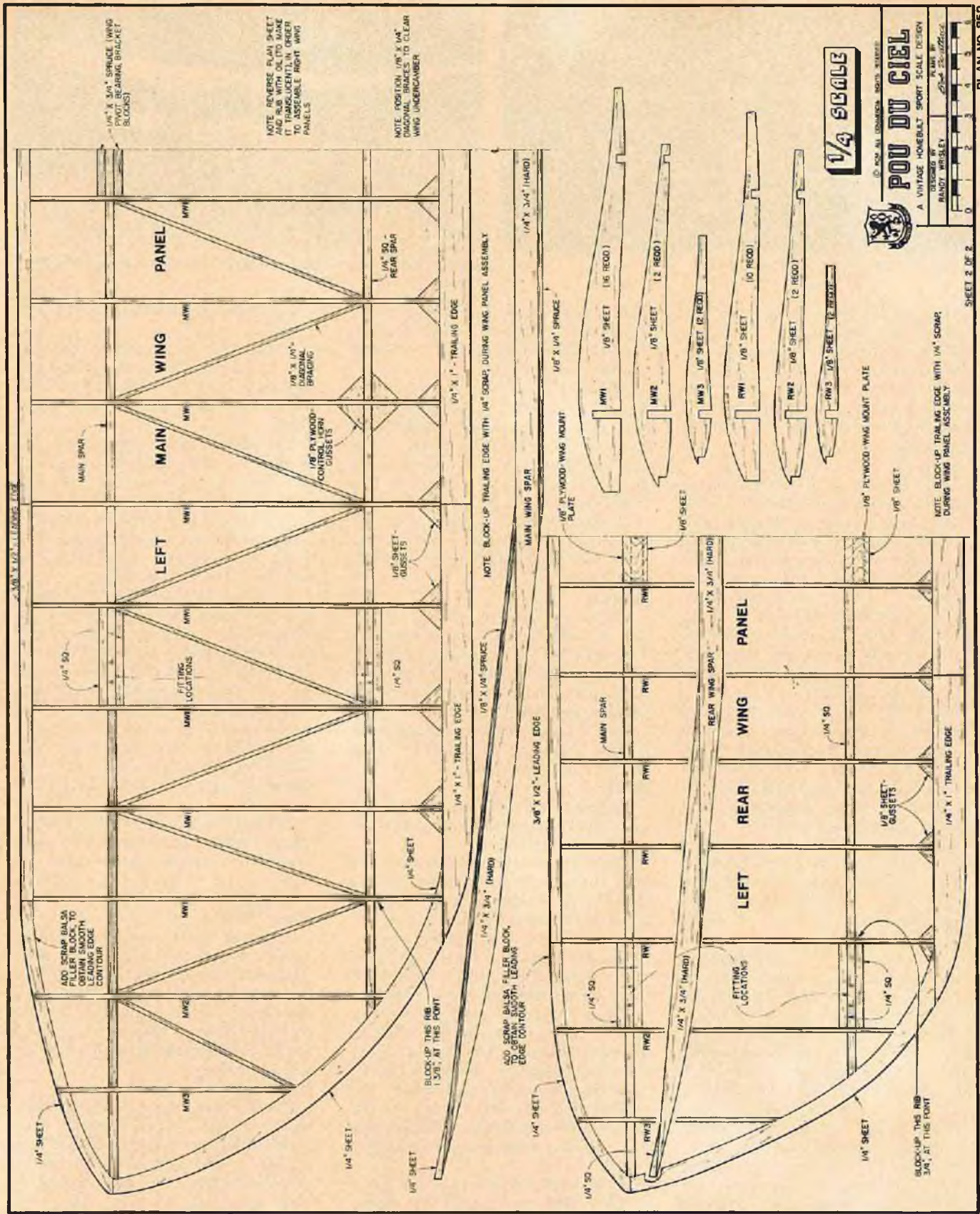
first. Remember, the doubler ends 1/8" from the front of the fuselage. Epoxy the 1/4" x 3/4" spruce bearing support blocks in place. Pin the sides together and carefully drill the 5/32" hole for the wing actuator bearing. The bearing is nothing more than a piece of

5/32" brass tubing Hot-Stuffed into the holes.

Cut Formers 1, 2, 3, and 4 plus A, B, and C from the size and type of plywood indicated. Lighten all the formers aft of the cockpit with several large holes. Former A should be cut to

fit your motor. I used a Saito .30. Any glow engine from a .19 to .35 can be used.

Now is a good time to install the blind mounting nuts and, with the motor in place, build a box under it. This box will later keep fuel out of the



1/4" SCALE

© 1974 ALL RIGHTS RESERVED
POU DU CIEL
 A VINTAGE HOBBYBAT SPORT SCALE DESIGN
 DESIGNED BY
 BARRY HUBBLEY
 2504 S. 24th ST.
 PHOENIX, AZ 85032

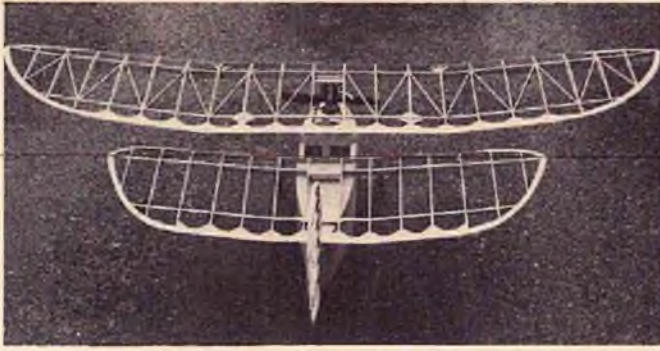
PLAN NO. 852

SHEET 2 OF 2

nose.
 Assemble the fuselage by first epoxying Formers 1 and 2 in place using a triangle to align them. Note #1 overhangs the front edge by 1/8". Carefully pull the sides together, installing the larger formers first with

Hot-Stuff. When you're satisfied it's straight, go over all the joints with Titebond for more strength.
 The tail block is made from three pieces of 1" T.E. stock. Install it before cementing on the soft 1/4" square balsa edge pieces. Cut the 3/16" music

wire landing gear to length and install it with "J" bolts. Epoxy the 1" triangle stock to F-1, trimming as necessary to clear the J-bolts.
 Install Former A using a couple of temporary gussets to get the proper slope. I chose to use a metal tank in the



Rear view of framed up "Pou Du Ciel."



William's Brothers vintage wheels are the finishing touch to this classic.

prototype. The Saito .30 gets 15 to 20 minutes on 4 ounces of fuel, so a bigger tank wasn't necessary. I made it part of the structure by soldering tabs on the top front and bottom rear, then bolting the tank to F-A and F-1. If you use a plastic tank make those gussets permanent.

Bend the main cabane from 1/8" music wire. I took the temper out of the wire before I bent mine. Cut the 5/32" brass tube to length and carefully attach it to the cabane with fine copper wire. Using the stove as a heat source, silver solder the parts together. I used low-temperature silver solder and have had no problems. Bolt the cabane to Former C, taking care to get the alignment exactly right. Use Sig 1/8" landing gear clamps to hold it in place.

Epoxy "FC" into place making sure the forward rake is exactly as shown on the plan. Cut the top block to the approximate shape and hollow the back so it fits flush to Former C. Epoxy the block in place, sanding it final contour once the epoxy sets.

Bend the front of the cabane to shape from 3/32" music wire. Solder it to the main cabane after wrapping the parts together with copper wire. The placement of the wire on Former A isn't critical, just so long as it isn't in the way. Use Sig 3/32" landing gear clamps to hold the assembly in place.

Now is a good time to cement Former B in place. Make sure the hole in Former A is large enough to slide your radio through. Cut the nose cowl sides to shape from 1/8" balsa. Note the grain runs up and down. Drill a 1/8" hole at the location shown. Epoxy one side on at a time, carefully coating all surfaces with the glue.

Block sand the outer cowl edges so the 1/32" plywood bottom/front piece will fit flush. Plank the fuselage bottom with 3/32" balsa except those areas where plywood is indicated. Now install the 1/32" ply nose piece taking care to see it fits smoothly into the balsa bottom.

Epoxy the rear wing hold-down blocks in place and plank the top rear of the fuselage with 3/32" balsa, again using plywood in the specified areas.

Add the spruce cockpit edging to the inside of the cockpit. This runner will later be used to keep the 1/16" plywood cockpit cover in place.

Make the cover now, making sure it fits without distorting the cockpit. To use the nylon tailwheel bracket you must add a small filler block to the bottom of the fuselage as shown on the plan. Do this before giving the fuselage a final sanding.

If you haven't already done so, install the 1/8" brass tube through the cowl and Hot Stuff it in place flush with the sides.

Rudder:

Cut the outline from soft 1/4" balsa. Lay it over the plan and cement the 1/4" square interior pieces in place. Make up the tailwheel from 1/16" music wire, slide it through the nylon bracket then fit the assembly to the rudder. Sand the rudder to shape, then fit the rudder to the fuselage using three heavy duty hinges.

Wing:

Make a template from plywood and cut sixteen main ribs. Do the same for the four tip ribs.

The toughest part of this wing is the spar. Build it directly over the layout. Briefly, it consists of a 1/4" x 3/4" balsa strip, capped with a 1/4" x 1/8" spruce stiffener. 1/4" square spruce blocks are epoxied in place to support the rigging fittings, and a small filler piece on top supports the wing tips.

If your angles are correctly cut, the spar will fit together so well that no dihedral braces will be necessary. If you have doubts, epoxy a 1/64" plywood side piece to each joint.

While the spar dries, mark the rib locations on it and cut all the leading and trailing edge pieces to correct length.

If you decide to cut lightening holes in your ribs, do it now, but don't lighten the two center section ribs. Stand the spar up in place over the wing plan. Carefully center it, using large triangles at the tips.

Pin the center section L.E. and T.E. in place and cement the ribs in. Note that the T.E. is blocked up 1/4" during construction. Cement the gussets in place at the trailing edge, then get

ready to move out to the first dihedral break.

Install the last rib before the wing tip, as shown in the photos. Carefully square it, then block the rear up 1 3/8". Fit the L.E. and T.E. to it, using Hot Stuff.

Eyeball the reflex towards the tip, using the center section as a guide. Slip the rest of the ribs in place and cement well. Add the gussets, then install the wing tips. Finish this "board work" by adding the tip ribs. Pick the completed wing off the board and carve the L.E. to shape.

Use filler blocks at the wing tip to L.E. joint to achieve a smooth contour. Cement the rear spar in place. Use hard lumber in the center section, but be sure to use stock that is soft enough to bend to the proper shape in the tips.

Epoxy the 1/4" x 3/4" spruce wing hold-down blocks to either side of the main spar at the center section. Likewise, install the 1/8" plywood gussets which will later support the control horns.

Cement the 1/8" x 1/4" diagonals in place, taking care to get them high enough to clear the undercamber.

Give the wing a very careful sanding, then it's finished.

Rear Wing:

This structure is really too big to be called a stabilizer. A study of the plan will reveal that it is built exactly like the main wing, so no additional instructions are necessary. Note that there is no cap on the main spar, and provisions are made for two hold-down screws at the spars.

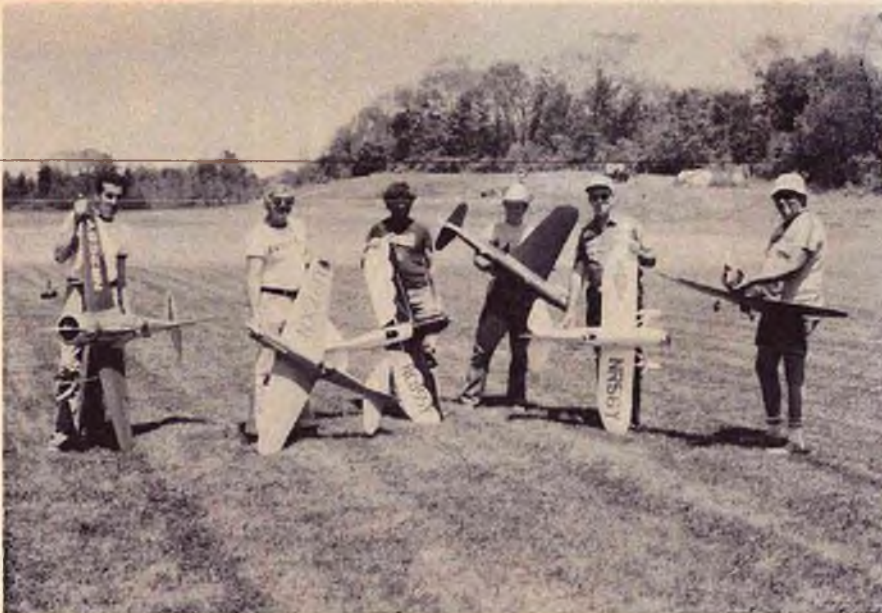
Covering:

By all means cover the structures before assembly. "G-ADMH" was overall silver, with black numbers and wheels. I used MonoKote, but most any covering will do. Take care not to warp those big wide wings, you will have trouble if you do!

Assembly and Rigging:

To keep it simple, I made all the metal fittings from 1/4" brass shim stock. Look at the drawings and drill the necessary holes for each part. Screw the parts to the proper components before you assemble the

to page 186



Some of the pilots and their models ready for the Time Trials. From left — Pete Jacob and Hughes H-1, Frank Tiano and Firecracker, J. Steffes with Gee Bee Sportster, Bob Currey and Caudron, Henry Haffke and Howard Ike, and Jerry Puleo with the Kleth Rider Suzy.



Dan Santich with his Baby Bullet, second in Giant Scale.

1981 RHINEBECK CLASSIC MEET

By Henry Haffke

The 5th Annual Rhinebeck Classic meet was held the last weekend in June at the picturesque Old Rhinebeck Aerodrome in Rhinebeck, New York. This location is the home of Cole Phalen's "Living Museum" of antique aircraft. It is hard to believe that a collection of old airplanes of this size exists anywhere, let alone the fact that they are flown regularly in the Saturday and Sunday afternoon airshows at the Aerodrome. The collection includes not only the aircraft, but a supporting cast of antique autos, motorcycles, tanks, weapons, and assorted other vehicles such as an ambulance, moving van and others. The shows at Rhinebeck are a delight to watch and fantastic entertainment for anyone, whether you are an aircraft buff or not. The collection is added to regularly, and this writer was fortunate to be asked to take a ride in Cole's newest addition to his fleet when he took up his newest craft, a Standard D-25. This was a very unusual aircraft of bygone years with two cockpits, the forward one of which seats four passengers. Along on the flight with me was Richard Uravitch who was covering the meet for Model Airplane News and the District II Vice President John Byrne. Cole took us up and made several low passes over the runway so that we could get pictures of the modelers along the runway and approach shots to the field. Then he treated us to an extensive ride out over the Hudson River where we could take pictures of the beautiful scenery and also circled around the Rhinecliff Bridge so that we could get shots of that. It was a very enjoyable experience and on the way back to the Aerodrome Cole gave us a little thrill with some full stalls and lazy eights. After landing, Cole related the story to us as to how he came to purchase the aircraft which was one of five that he bought from a fellow in Phoenix, Arizona who had used them for crop dusters. They had been sitting around for several years and he

wanted to get rid of the entire lot of them so Cole loaded up a whole box car with the craft and parts and put together one flyable aircraft from the collection. It was a very funny story as to just how he came to find out about the obscure antiques.

The weather for this year's Classic contest was the best so far in the five years that the Mid Hudson club has been conducting this contest for models of the Golden Era. Saturday had medium winds (they are usually quite strong) but it was coming straight up the runway. Sunday had very little wind at all and it was just a great day for model flying.

The meet features five events which can be entered by



Aerial view of Rhinebeck airstrip from Standard D-25.



Aerial view of beautiful Rhinecliff Bridge through the struts and wires of the Standard.



Bob Granville with Henry Haffke and his Gee Bee Model D Sportster.



Mike Winters (note resemblance of model pilot) with his Tiger Moth, third in Giant Scale.

the contestants providing they have a suitable model of an aircraft which made its first flight between the end of WW I and 1937. The events that are flown are the regular AMA Precision Scale event, the AMA Sport Scale event, the provisional Giant Scale event, and two special Rhinebeck events called Barnstorming and Time Trials. In the Barnstorming event the pilot is required to take-off, perform a three turn spin, drop a mail bag on a target, execute three loops, and then make a spot landing on the target. The flight is timed in seconds and penalty seconds are added for missing a spin, or loop, or missing the center of the target on the mail bag drop and landing. In the Time Trials, you are required to fly a model of an aircraft that was involved in some form of air racing or a race against time. In this event, a pilot is allowed to make three two-way passes through an electronic time trap with his average



Modelers along runway as the Standard makes a low pass over the runway.



Joe Gallagher and Bob Granville with Joe's Gee Bee Model E Sportster, first in Giant Scale.



Charlie Jentsen with his fleet. Pete Jacob's Hughes H-1 in foreground.

speed on any one, two-way trip, added to his Sport Scale static score for his event to score. So the better scale models get an advantage over the models that are built strictly for speed without much attention to scale detail. This scoring system has proven to be a real equalizer over the years in this event. The meet is a real fun contest and the Barnstorming and Time Trials events add a big touch to the Golden Era contest as this kind of flying was the big thing during that period of aviation history.

The AMA event was graced by three beautiful models as George Rose flew his well-known Curtiss Hawk P-6E. This model has won nearly everything in the scale world and narrowly missed winning the World Championships last year by 1/2 point. It has also been awarded top honors by winning Best of Show awards at both the WRAM show in New York and the Toledo show in Ohio. Not only did it win

Photos By Raymond Haffke



R. Cote with his Travelair, second in Sport Scale.



Bob Granville ready to release Henry Haffke's Howard Ike, third in Sport Scale.



Frank Tiano lets Stanley Segala fly his Bucker Jungmeister. Stanley is one of the main performers in Cole Phalen's air shows. What Stanley does in a Super Cub is hysterical and unbelievable. What he did with Frank's Jungmeister was pretty funny also.



Steffes' Gee Bee Sportster made one pass over 112 mph after hitting a tree on earlier flight.

these honors, but the Toledo win came after three years of flying the model. As expected, George won the event easily. Second place winner was the beautiful Gee Bee Model D Sportster built by Henry Haffke. This model is Quarter Scale and is flying in its second season on the contest trail. Third place went to Peter Jacob's new Hughes H-1 Racer. This model was flying in only its second contest having just been finished a week ago when it made its first appearance in a contest in Delaware. This model did not have the detail that the first two models sported but proved to be an excellent flying craft. Not having retractable landing gear marred its performance but its flying characteristics were excellent. Scoring results in this event as follows:

| | | static | total |
|-----------------|-------------------|--------|-------|
| 1. George Rose | Curtis Hawk P-6E | 397 | 776.5 |
| 2. Henry Haffke | Gee Bee Sportster | 302 | 639.5 |
| 3. Pete Jacob | Hughes H-1 | 220 | 568 |

Sport Scale featured some beautiful models and great flying. Pete Jacob has won this event every year and this year was no exception. His Spirit of St. Louis is a hard ship to beat. The rest of the contestants, however, spent the two days of the meet changing positions and the contest was not finalized until the final flights. When the final scores were figured, second place went to Bill Cote and his beautiful Travel Air biplane. Third went to Henry Haffke and his veteran Howard Ike. This was the fifth year for the Ike at Rhinebeck and it is the only model to have flown in all five Rhinebeck meets and is also the only model to have competed in every event at Rhinebeck. The difference between second and third place was a mere .05 of a point. Final results in the event:

| | | static | flights | total | |
|-----------------|---------------------|--------|---------|-------|--------|
| 1. Pete Jacob | Spirit of St. Louis | 97.1 | 85.5 | 86 | 182.85 |
| 2. W. Cote | Travel Air | 88.3 | 80 | 82 | 169.3 |
| 3. Henry Haffke | Howard Ike | 88.5 | 76 | 83 | 169.25 |

Giant Scale continues in popularity and had the most entries of any of the events at this year's Rhinebeck meet. The workmanship on these giant models was superb and the flying was outstanding. The bigger models just fly so much more realistic than their smaller counterparts. Dan Santich came all the way from South Carolina to fly his beautiful Heath Baby Bullet and Mike Winters came from outside Washington to fly his well-known Tiger Moth. Former winner Ray Hinds flew his beautiful Fleet again and Joe Gallagher had resurrected his fabulous Gee Bee Model E Sportster after a crash at Rhinebeck two years ago. Other models included another pair of Fleet biplanes, an Aeronca C-3, a Mister Mulligan, and a beautiful Waco cabin among others. After static judging, Joe Gallagher's Gee Bee was at the top of the list with a static score of 114.2, followed very closely by Dan Santich's Baby Bullet at 113.8 and Mr. DeGrosa's Fleet at 112. After Saturday's flying, Dan Santich was the leader after putting in some excellent flights and Mike Winters who had the highest flight scores of the event sitting in second place. Joe Gallagher's Gee Bee was in third and DeGrosa's Fleet in fourth. Joe Gallagher put in two beautiful flights early Sunday morning to move into first place and Dan Santich spent the rest of the day making flight after flight trying to regain the top spot but it was to no avail as Gallagher's scores stood up till the end. Mike Winters used a banner tow as one of his flight options and his banner advertised the meet he conducts in Bealton, Virginia each September. Final results in Giant Scale:



George Rose's Firecracker, winner of the Time Trials event with one pass at 140 + mph.



Jerry Puleo starts Suzy for Time Trials flight. Richard Urvilitch holds.

| | | | | | |
|------------------|-------------------|-------|------|------|--------|
| 1. Joe Gallagher | Gee Bee Model E | 114.2 | 95.5 | 93.5 | 208.7 |
| 2. Dan Santich | Heath Baby Bullet | 113.8 | 93.5 | 93.5 | 207.3 |
| 3. Mike Winters | Tiger Moth | 93.5 | 108 | 104 | 199.25 |

| | | |
|-----------------|-------------|-------------|
| 1. Doc Margraff | Fleet | 67 seconds |
| 2. Mr. Woods | J-3 Cub | 106 seconds |
| 3. Frank Tiano | Jungmeister | 142 seconds |

The Time Trials this year were very exciting, as they have been the past couple of years, as some of the modelers have built special speed ships for this event. It was rumored that the top speeds might near the 125 mark this year as that was what the top pilots were shooting for. They sure hit their intended goals as three of the models neared the 140 mark with George Rose topping 140 with his Shoenfeldt Firecracker. Jerry Puleo came very close as did Frankie Tiano who couldn't get his hot ship airborne on Saturday but finally did get it to run right on Sunday. J. Steffes also topped the 100 mph mark with a Gee Bee Sportster. With these hot ships there were a number of accidents for added excitement. George Rose had his engine quit out over the trees and his Firecracker went down. It was found in a short time with relatively little damage. Steffe's Gee Bee hit a tree at over 100 mph but suffered only torn covering on Saturday and he had it flying in the Time Trials again on Sunday when he made one pass through the speed trap at 112 mph. Tiano and Puleo weren't so fortunate as Jerry had his Kieth Rider Suzy really running and as he came down out of a Split S to gain speed for his next run through the traps, his Suzy shed a wing in the dive probably exceeding 150 mph and there wasn't much left of it after it hit the ground at that speed. Frank Tiano lost his Firecracker which was nearly identical to Rose's ship when he hit the Black Barrons Sausage factory on one of his final runs. This sheared off the right wing panel and the model just rolled into the ground at a speed in the area of 140 mph. Final results Time Trials:

| | | static | average speed | total points |
|----------------|-------------|----------------------|---------------|--------------|
| 1. George Rose | Firecracker | 93.2 | 119.23 | 212.45 |
| 2. Jerry Puleo | Suzy | 71.3 | 119.36 | 190.66 |
| 3. Frank Tiano | Firecracker | (scores unavailable) | | |

The Barnstorming event was a repeat of last year's event so far as the first two places were concerned. Doc Margraff has won this event for four years in a row as he concentrates all his efforts on this one fun event. His winning time this year was 67 seconds. Doc got in 17 flights during the meet which is probably a record. Second went to Mr. Woods and his J-3 Cub. His time was 106 seconds and Frank Tiano took 3rd with his Bucker Jungmeister. His time was 142 seconds. This is a real fun event and is enjoyed by the spectators. Final Results in Barnstorming:

This is the results of the five events flown at the meet but there are two special awards that are presented at the conclusion of the meet. One is the Barnstorming Award presented by Cole Phalen and is awarded to the contestant who fares the highest in the three events with the same model. The three events being one of the Scale events, Barnstorming, and Time Trials. This year's winner was Pete Jacob and his Hughes H-1 racer which finished 3rd in AMA Scale, 4th in the Time Trials, and 4th in Barnstorming. The other special award is the Granville Brothers Challenge Trophy which is awarded to the pilot flying the outstanding model of a Gee Bee airplane in the meet. This year's award went to Joe Gallagher for his Giant Scale winning Gee Bee Model E Sportster.

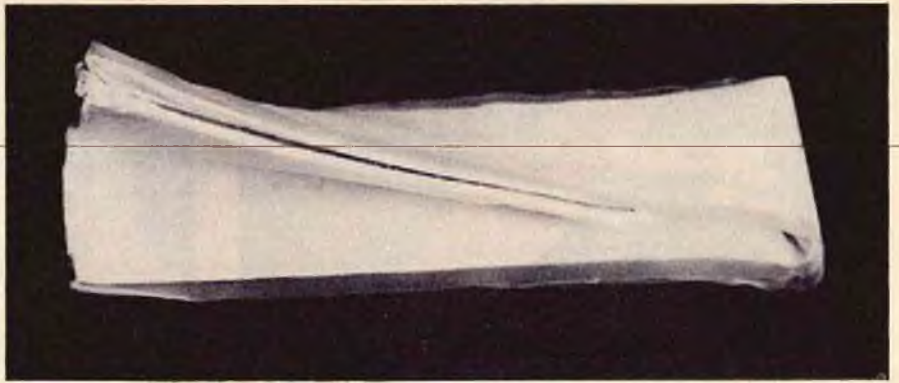
This year's Classic meet was an excellent meet with all pilots getting in as many flights as they wanted if they were at all ambitious. Four flight lines gave everyone plenty of opportunity to fly. A total of 154 flights were logged with the top number of flights flown by Doc Margraff with 17 flights in the Barnstorming event, Frank Tiano put in 13 flights in the Sport Scale event, and Dan Santich put in 10 flights in the Giant Scale event. As usual, the Mid Hudson Club did their fantastic job of running everything smoothly and their retrieving crew found all aircraft that went down in the woods. Another Rhinebeck Classic meet is history and I am sure all of the contestants are looking forward to doing it again next season. □



Bob Granville calls while Henry Haffke taxis his Gee Bee Sportster at start of AMA flight.



Woody's Instant Wood Glue is a cyanoacrylate with two year shelf life without refrigeration.



Hobby Strip is a three layer ribbon that is activated by kneading. Can be drilled, sanded and painted in a few minutes.

LOCTITE

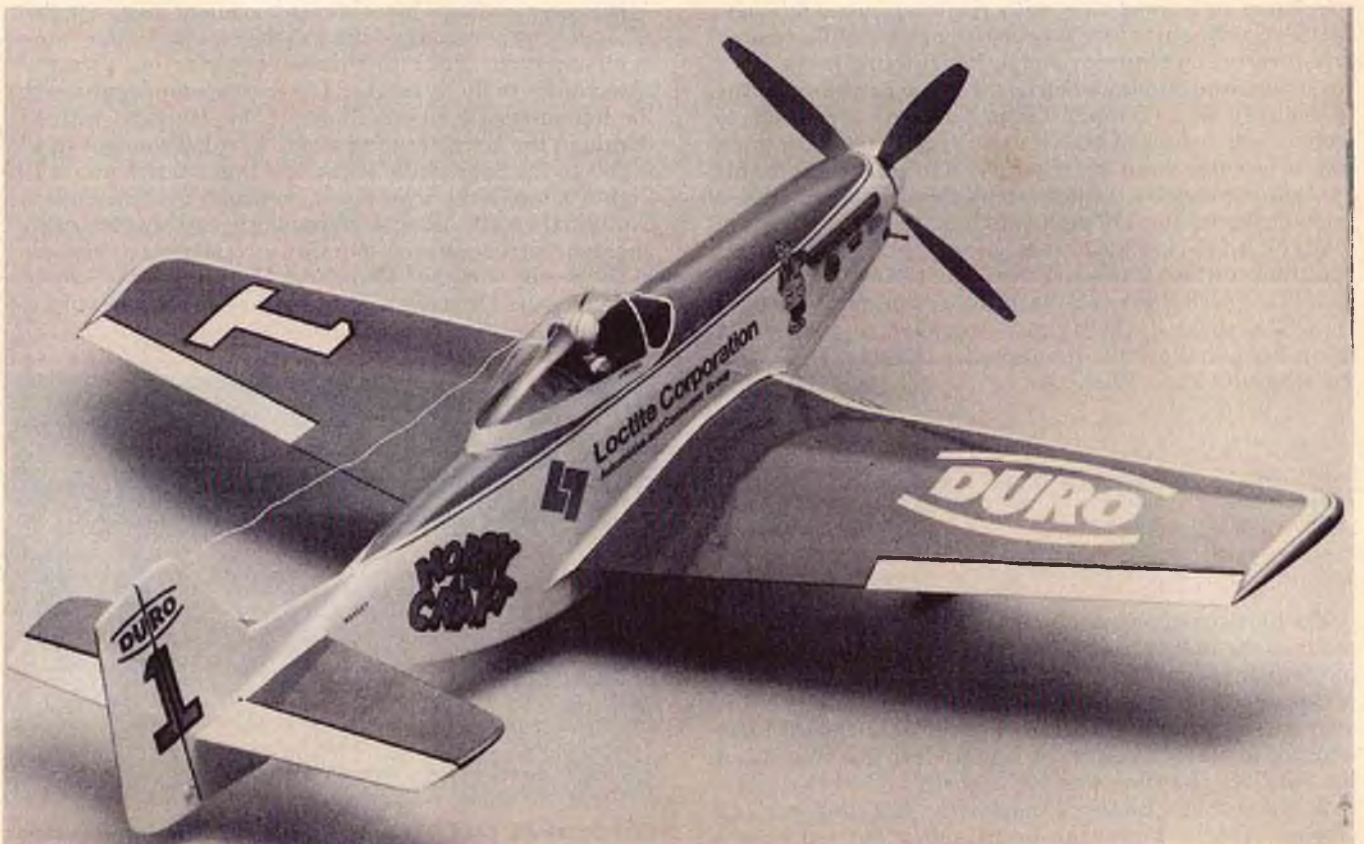
Enters The Model Field

By Frank Tiano

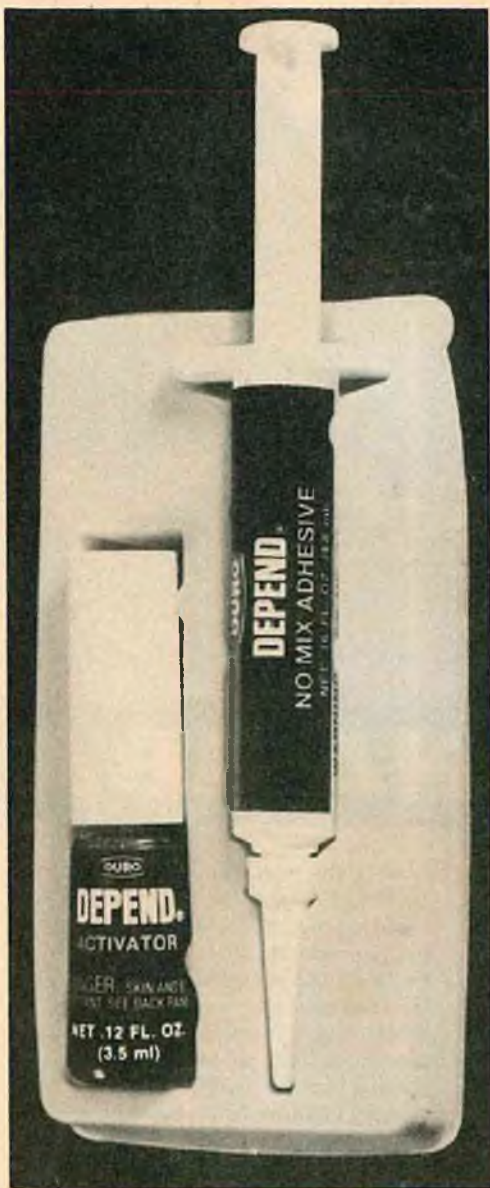
Guess what? Just when we figure that every adhesive that we've ever wanted is ready and waiting for us, Loctite Corporation comes along and releases a complete new line aimed directly at the modeler. Through one of its many divisions, Woodhill Permatex, they have recently announced a series of hobby and craft adhesives marketed under the "Duro" trade name. I

recently received a few of the new products and would like to pass the information along to my fellow modelers.

All of the Duro products are attractively packaged and retail for nominal prices. Woodhill is in the process of a very large, Nationwide, sales campaign to make the modeler aware of their new products. By the time this is in print, their entire line of



House of Balsa P-51 built by Chris Abate. The model was built using only the Duro adhesives.



Depend No Mix Adhesive is unique; adhesive is applied to one surface, activator is applied to another and surfaces are pressed together. Bonds in 60 seconds.



Lock-It Anaerobic Lockwasher. Vibration will not undo it.



E-POX-E 5 comes in a double barrel syringe for dispensing equal amounts of resin and hardener. Cures in 5 minutes.

adhesives and other products should be available through various distributors. Even though their line encompasses over 200 items, we're just going to talk about the ones that can be used by the model airplane enthusiast.

One of the first on the list comes the ever popular "Super Glue." This cyanoacrylate comes in a soft tube and one drop bonds or mends almost anything including plastics, china, wood and ceramics. It should need no introduction since it is really the forerunner of all the fast type, instant adhesives.

Another nice product is their Duro brand Super Glue Remover. This neat stuff removes all brands of instant adhesives from all surfaces, including your skin, easily and quickly. Its gel-like formula also comes packaged in a tube.

Their newest and most unbelievable product is called "Depend." This adhesive is a very high strength compound that literally bonds anything to anything. It comes packaged in a very handy spring-type applicator and includes a small tube of fluid to be used as an activator. Just put a drop of the activator on the surface to be joined, follow with a drop of Depend, and a strong bond occurs in less than a minute. Best of all, this adhesive works on oily or dirty surfaces. We have already refastened a broken firewall to the front of the fuselage at the field with this product. It works absolutely great!

Duro's answer for an instant wood glue is called "Woody's." This instant glue is made primarily for wood to wood bonds and is strong and durable. It works very well on hardwoods and plywood.

Also available are two forms of epoxy with the trade name, E-Pox-E. Both come in soft, handy to use tubes or in a dual syringe for easy dispensing. There is a long drying type as well as a 5-minute variety. Both are general use epoxies and both will bond almost anything to almost anything.

One of Duro's handiest products is their Contact Cement which comes in a 3 ounce jar and has a multitude of uses. It's perfect for projects that can't be clamped but require a strong, permanent bond. It features a fast drying formula and takes hold immediately upon contact. Another form of contact cement is available in a spray can and is called, simply, "Spray Adhesive." This product works well on paper, cloth, foil and foam. It's ideal for fastening hatches to scale aircraft. A light coat allows a



1981 NAMBA

The 1981 NAMBA National Model Boat Contest was held in Amarillo, Texas, on what most contestants agreed was a most beautiful setting. The lake was in the middle of a large city park and golf course complex so the contestants were treated to grassy shores and shade trees that effectively sheltered the running site from the ever present Texas wind.

The racing facilities were top notch and Contest Director Fred Wall and Assistant Director Charles Mobley are to be congratulated for their work in supplying these facilities. The Muddy Rudder Boat Club members worked long and hard hours to run this contest. Howard Holcomb, Joyce Wall, Mike Allen, Vicki Holcomb, Alan Hobbs, the whole Brad Cobb family, and many others I must have omitted were there the whole week and were the backbone of the contest.

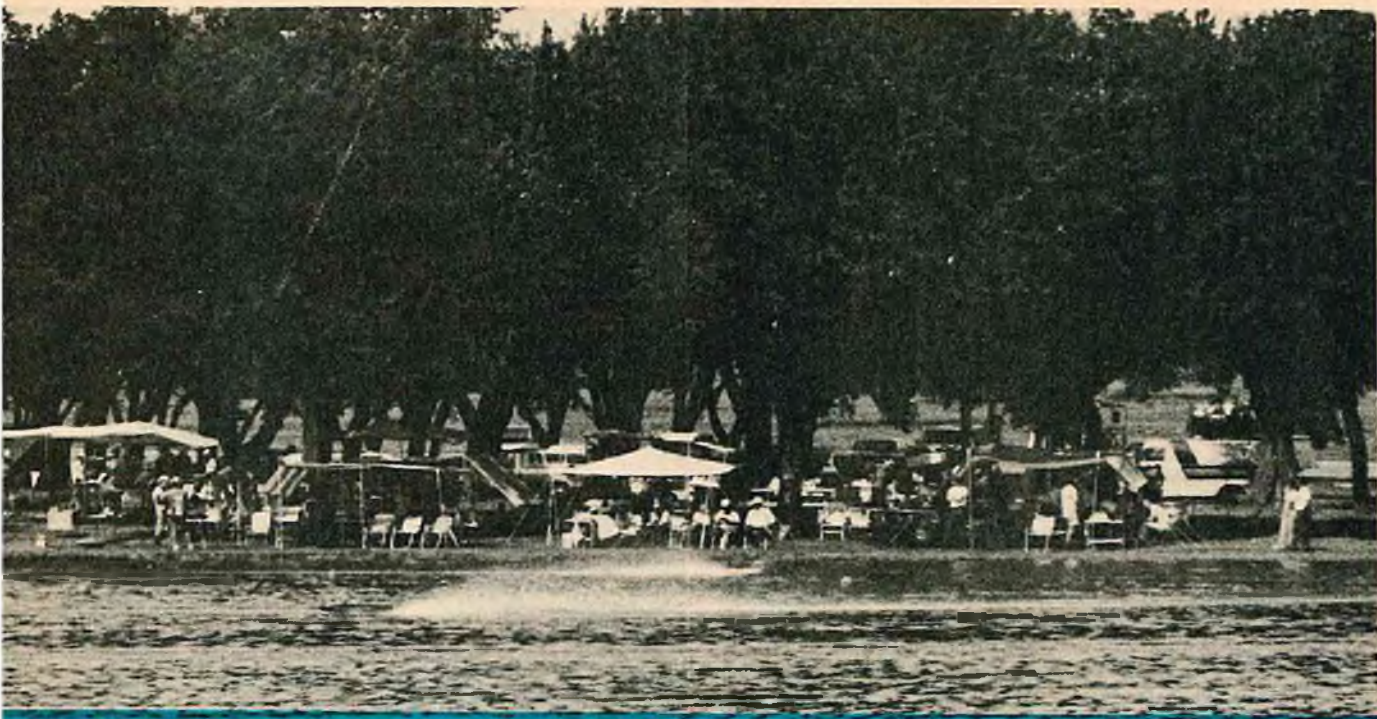
The racing started on Saturday with

the Scale Unlimited Hydro and Sport 40 Hydro classes. There were only eight entries in the Sport 40 class, probably because this was the first year that the class was an official event. These boats have 36 inch hulls that resemble full scale racing hydros, but are not necessarily scale models of real boats. There were two boats in the class that used the lower power, side-port, front rotor engines and the rest of the group ran Schnuerle ported engines with pipes. The high powered boats were much faster but they had difficulty staying tight around the course and seemed to be able to attain higher speeds than the hulls were capable of handling. The side-port, non-piped boats, however, were capable of very tight corners. In the end, horsepower won out and Kelly Wilson from Texas won the class driving a boat powered by a K & B 7.5 turning an Octura 1455 prop using 25% nitro fuel. The most awesome

boat of this class was that owned by Dave Collis from Canada. He finished third using a Vic Drew fiberglass hydro powered by an O.S. 46 using an Octura 1462 prop and 50% nitro fuel. His boat could have competed in the B hydro class as far as speed was concerned but he had some trouble staying on the water at times. The side-port engine boats finished second and fourth. Joe Monohan of Los Angeles drove the fast guys crazy by hugging the buoys and finished second with his K & B 40 Sport engine, a J.G. H-25 prop and 35% nitro fuel powered Miss Van's P-X hydro.

The unlimited hydros were in full force with the likes of Miss Bud U-12 and U-1, Miss Circus Circus, Shanty, Squire, My Gypsy and a lot of others. Howard Power of Monterey won the class driving a newly painted Miss Budweiser U-12 powered by a Rossi 65 engine. The prop was an Octura 1465 and 60% nitro fuel was used. Wally





NATIONALS

By
Howard & Bev
Power

Stewart from Bakersfield, CA., came in second driving Notre Dame U-7, powered by an OPS 60, using an Octura 2.4 prop that was modified by Ron Erickson to reduce lift, and 50% fuel. Third place was won by Richard McWayne of Vacaville, Ca., driving U-95 Sunny Jim powered by an O.S. 65 side-port engine using 60% fuel and a 1465 prop. The unlimited hydros run the love plan to decide the final standings. Three preliminary heats only decide who would make the final Main Event. Your finish position is then determined by your performance in the final heat. Six boats race in the main with an alternate boat ready to race if one of the top six boats fail to answer the starting clock. The final heat was probably one of the best seen at any of the Nats that I have attended. Six boats started, ran well, and finished. It was a great show for the spectators and for the many contestants who had never seen those

big beautiful boats run. Theresa McWayne, of Vacaville, Ca., won the Scale Hydro Concours trophy. Her Miss Technicolor had so many different colors and the paint job was perfect. The boat really deserved the top honor.

On Sunday the Team Marathon, 1/2 Hour Enduros, and Offshore classes were run. The team marathon event pits several teams consisting of two drivers, two pit men, and two class B boats. The race is run for a total of 100 laps but each boat runs 10 laps then a flag is transferred to the second boat, which then runs its 10 laps. This procedure is continued until the team completes their 100 laps. It all sounds very simple but each boat must complete its 10 laps before the next boat can hit the water. Not only that, there is no retrieving the boats during the race unless all the boats are dead in the water. The whole thing makes for an entertaining and very

interesting race. This year there were four teams entered: The Prather Racing Team, Team Crapshooter, the custom Marine Supply Team, and the Alii Racing Team, consisting of John Brodbeck, Jack Garcia, Pat Crews, and Dick Tichenor. I knew this latter team was in trouble when Dick asked me whether the pointed end was the front or the back of a boat. Pat quickly came to my rescue (she is a two-time veteran of the K & B Ladies Day Regatta) and explained to Dick what his responsibilities were.

The race started and the Crapshooter team died at lap 5 because their needle valve vibrated to a lean position. They waited it out as the wind pushed the boat toward the opposite shore. The Alii team's second boat died on about the 12th lap when it found out that Tichenor was at the helm. The two remaining teams ground out the laps with the Prather

text to page 59





Sport 40 winners: (L to R) 2nd Joe Monohan, 3rd Dave Collis, 1st Kelly Wilson.



C Deep Vee: 1st J.T. Finley, 2nd Don Reutlinger, 3rd Bev Power.



B Mono: 1st Jim Whitlatch, 2nd Terry Prather, 3rd John Brodbeck.



B Enduro: 3rd Al Prather, 2nd Gary Frank, 1st Dot Prather.



C Hydro: 1st Roger Hooks, 2nd Theresa McWayne, 3rd Garry Jeffery.



A Outboard Mono: 3rd Dave Collis, 2nd Richard Hazelwood, 1st Jack Garcia.



A Hydro: 1st Sid Ford, 2nd Art Hammond, 3rd Norman Teague.



A Outboard Hydro: 1st Norman Teague, 2nd Joe Monohan, 3rd Richard McWayne.



A Offshore: 1st Art Hammond, 2nd Gary Johnson, 3rd Arthur Valdesere.



A Deep Vee: 1st Mike Drewery, 2nd Art Hammond, 3rd Judy Prigley.



X Deep Vee: 1st Al Prather, 2nd John Frakes, 3rd Robert Steele.



C Offshore: 3rd J.T. Finley, 1st Bev Power, 2nd Don Reutlinger.



B Deep Vee: 1st Terry Prather, 2nd Mike Drewery, 3rd Robert Holland.



C Mono: 1st Robert Holland, 2nd J.T. Finley, 3rd Roger Hooks.



A OPC Tunnel: 1st Jack Garcia, 2nd John Brodbeck, 3rd Terry Prather.



A Mono: 3rd Diana Semler, 2nd Richard Hazelwood, 1st Mike Drewery.



Unlimited Scale: 3rd Richard McWayne, 2nd Wally Stewart, 1st Howard Power.



Theresa McWayne, Miss Technicolor U-76, 8th Place.



John Brodbeck, Miss Circus Circus U-31, 4th Place.



Don Reutlinger, Miss Budwaiser U-1.



Joe Monohan, Miss Van's PX U-80, 7th Place.



Cecil Reynolds, Squire U-64, 6th Place.



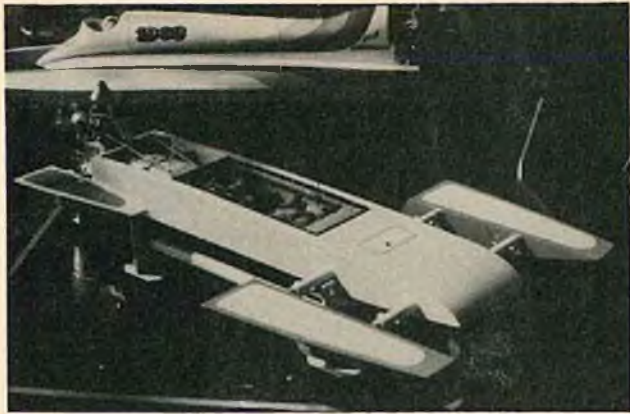
Roger Hooks, My Gypsy U-15, 5th Place.



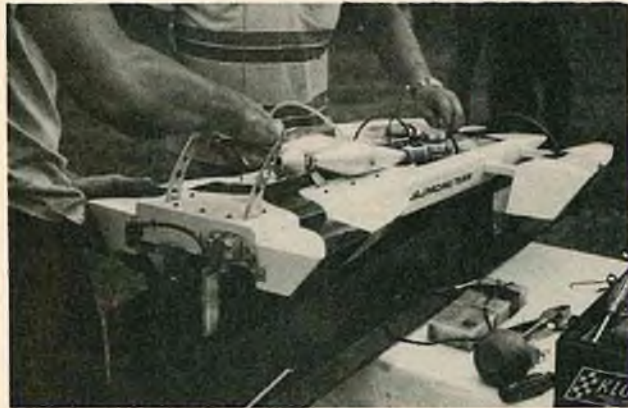
Gary Frank, Miss Circus Circus U-31.



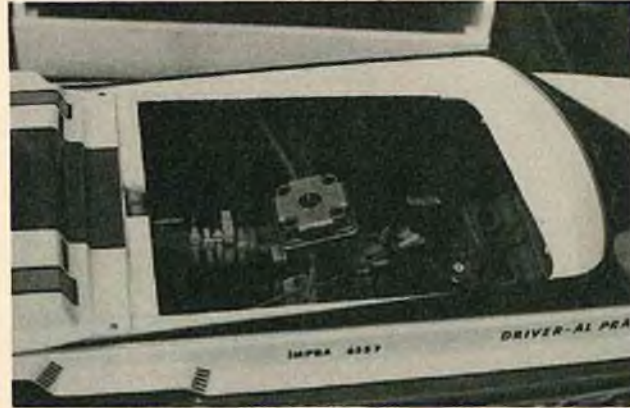
Gary Thornton, Clovis, New Mexico, Thundergator.



Norm Teague's Outboard, Crapshooter hull.



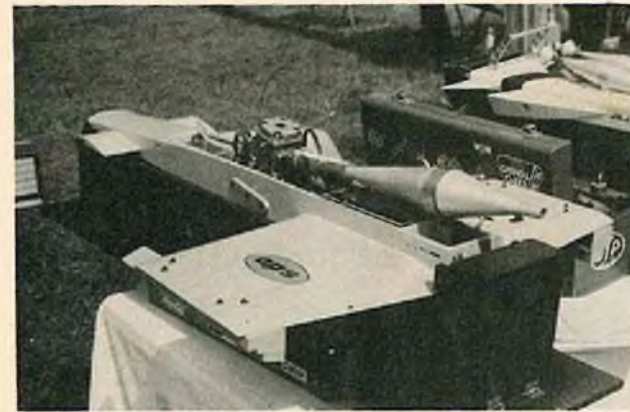
Gary Jeffery's Double Trouble Thundergator.



OPS 90 installed in Al Prather's 1st Place X Deep Vee.



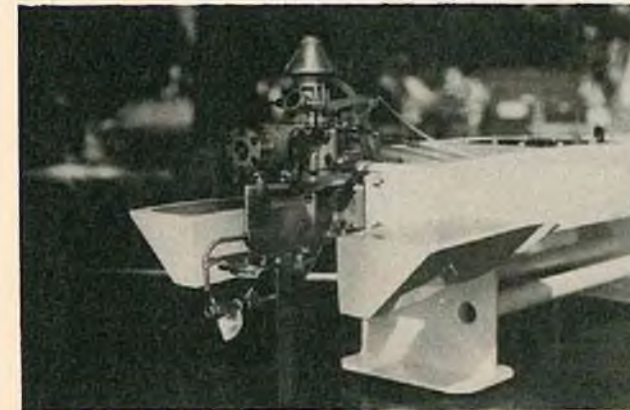
Note driver Installation in Wally Stewart's Unlimited.



Ed Fisher designed Canard driven by Gary Jeffery.



Norm Teague demonstrated K & B 7.5 Outboard in new Prather Tunnel.



Clean K & B 3.5 Outboard installation.



X Mono: 1st Don Farmer, 2nd John Frakes, 3rd Bev Power.



X Hydro: 1st Howard Power, 2nd Jim Whitlatch, 3rd Gary Thornton.



B Hydro: 1st Howard Power, 2nd Dennis Preston, 3rd Jack Oxley.



Ken Hobgood's original X Hydro, twin K & B 7.5's.



Gopeller folks Jim Gale, JG Props, and Tom Prezenka, Octura.



Retrieve boat brought back all 6 A Hydros in this heat.



Six and seven boat heats were the order of the Nats.



Cecil Reynold's Bad Cat, Wardcraft 40, O.S. 46.



Stuart Russell, NAMBA President, ran a Dumas boat.



Howard Power frowns at the readings on Gary Frank's weather station.



Chris Christlanson from Canada, Warp boat.



Muddy Rudder, Mike Allen, Amarillo, X Mono.



Team Canada, (L to R) Chris Christlanson, Dave Collis, Gary Jeffery, Dave Haydon.



Muddy Rudder C Hydro judges.



Drivers get their instructions for the Team Marathon event.



Asst. C.D. Charles Mobley (left), and C.D. Fred Wall.



Team Marathon winners: Frank, Johnson, Reynolds, and Drawery.



Steve Muck, Muck Streaker, O.S. 65.



Fred Walls' Twin X Hydro, backwards Crapshooter.



Gary Johnson with his armada.



Mary Ann Hobgood, Colorado, B Hydro.



Dave Clark, Kansas, Coyote, OPS 65.



Mom Coad drives, Jack Garcia panics.



Rosie Garcia ignores the signs.



The NATS ends here for Joe Monohan.

1981 NAMBA NATIONALS EVENT WINNERS

Scale Unlimited

1. Howard Power
2. Wally Stewart
3. Richard McWayne

Sport 40 Hydro

1. Kelly Wilson
2. Joe Monohan
3. Dave Collis

Team Marathon

1. Custom Marine Supply Team
Drewery/Reynolds/
Frank/Johnson
2. Prather Racing Team
A. Prather/D. Prather/
T. Prather/D. Semler
3. Crap Shooter Team
B. Prigley/J. Prigley/
R. McWayne/T. McWayne

Class B Enduro

1. Dot Prather
2. Gary Frank
3. Al Prather

A Offshore

1. Art Hammond
2. Gary Johnson
3. Arthur Valdesere

C Offshore

1. Bev Power
2. Don Reutlinger
3. J.T. Finley

Dumas A Deep Vee

1. Mike Drewery
2. Art Hammond
3. Judy Prigley

Dumas B Deep Vee

1. Terry Prather
2. Mike Drewery
3. Robert Holland

Dumas C Deep Vee

1. J.T. Finley
2. Don Reutlinger
3. Bev Power

Dumas X Deep Vee

1. Al Prather
2. John Frakes
3. Robert Steele

Club Team Champions

The Eight Of Us

R. McWayne/T. McWayne/B. Power/H.
Power/J. Power/B. Prigley/J. Prigley/D.
Reutlinger.

A Outboard Mono

1. Jack Garcia
2. Richard Hazelwood
3. Dave Collis

A Outboard Hydro

1. Norman Teague
2. Joe Monohan
3. Richard McWayne

A OPC Tunnel

1. Jack Garcia
2. John Brodbeck
3. Bev Power

A Mono

1. Mike Drewery
2. Richard Hazelwood
3. Diana Semler

B Mono

1. Jim Whitlatch
2. Terry Prather
3. John Brodbeck

C Mono

1. Robert Holland
2. J.T. Finley
3. Roger Hooks

X Mono

1. Don Farmer
2. John Frakes
3. Bev Power

A Hydro

1. Sid Ford
2. Art Hammond
3. Norman Teague

B Hydro

1. Howard Power
2. Dennis Preston
3. Jack Oxley

C Hydro

1. Roger Hook
2. Theresa McWayne
3. Gary Jeffrey

X Hydro

1. Howard Power
2. Jim Whitlatch
3. Jack Oxley

Prather placed third with a boat that was similar to wife Dot's boat.

This was the first year that the Offshore event was run at the Nationals. Offshore rules allow any type of hull that was run in full scale Offshore events. This means that deep vee hulls, tunnel hulls, and vee bottom hulls with flat pads are all legal. Art Valdesere from Delaware was, however, the only contestant who didn't just drive a deep vee hull in this event. The deep vees were able to handle the rough water conditions created by many boats and the sharp left hand turn of the Offshore course. I'm sure that in the future the special boats will develop and start to dominate the class. Class A Offshore was won by Art Hammond from Dublin, California. Art's boat was a Prather 21 powered by a rear rotor K & B 3.5. A JG 3D8 prop and 40% fuel made his boat one of the best running boats in the class. Just before the Nats, Art drove(?) his boat upon the rocky shores of a Reno boat pond. He completely cut off the damaged nose section and spliced another one on just to make this race. Art is a bit of a perfectionist so I drove him crazy by telling him that I could see the repair seams. I must confess now, however, that I couldn't.

Second place was taken by another Prather boat owned by Gary Johnson of Santa Clara, California. His boat used OPS 3.5 power, E-20 prop, and K & B 1000 fuel. Arthur Valdesere brought his JVS tunnel hull into third place using a PICO 3.5, a G-20 prop, and 40% fuel. C Offshore was won by Beverly Power of Monterey, California. She drove her Dumas fiberglass 60 deep vee hull "Day Tripper" that is over six years old. It was powered by a Rossi 65 and had a JG I-27X prop using 5% nitro fuel. This low nitro percentage was necessary to make the required 10 minute heat time on 32 ozs. of fuel.

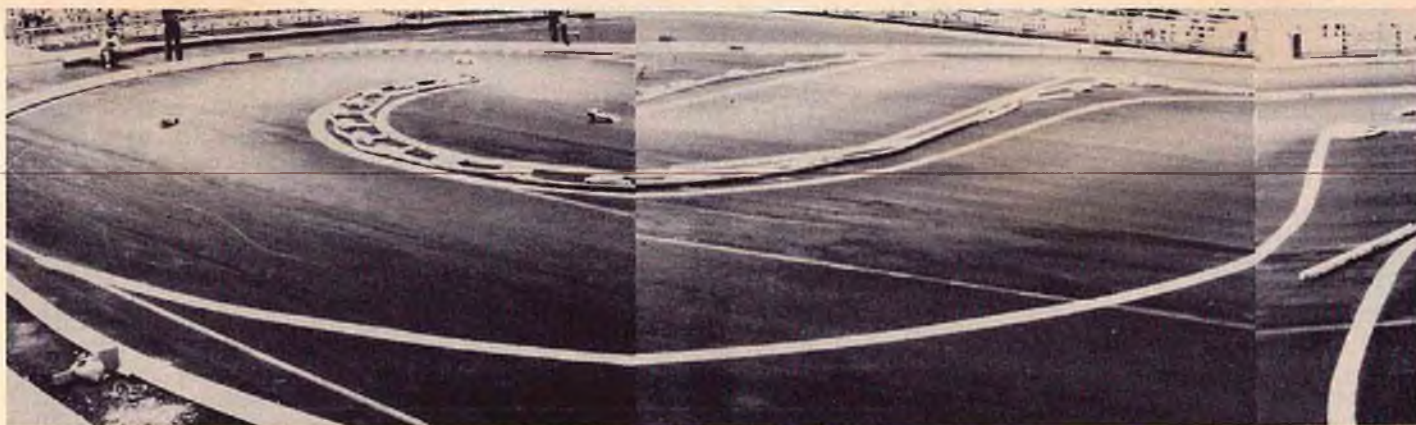
Second place was Don Reutlinger, the District 9 Director. Don's boat was also a Dumas 60 hull that we affectionately call "clone" because it is almost a duplicate of Bev's boat. Don, however, used 25% fuel for his Rossi 65 and used an Octura 1742 prop. Third place was captured by J.T. ("Is everybody having a good time?") Finley of Wichita Kansas. His 3-D boat "Ole Spot" (named because it has so many battle scars) was very fast but during one of the heats someone yelled "roll over" and Ole Spot did. Spot was powered by a Rossi 65, used an Octura X455 prop and 25% nitro fuel.

Monday and Tuesday were for the running of the Dumas Deep Vee Classic. This event involves deep vee hulls only racing on an irregular course with a left hand turn. Each

team leading by about one lap. The CMS team came in at lap 40 with a bent rudder which was quickly bent back and relaunched. About this time the Crapshooter team retrieved their boat from the opposite bank, checked it out and got back into the race. In the last 10 laps the Prather team went off the pipe and slowed down while they were two laps ahead of the CMS team. They brought it in to adjust the needle valve but the boat died on launch and the CMS team finished for the win. You just never know who will win until the last lap of the Team Marathon. CMS team members, Gary

Frank, Cecil Reynolds, Mike Drewery, and Gary Johnson from the Marine Modelers of Santa Clara California had pulled off a miracle finish.

After the Team Marathon event the 1/2 Hour Enduro and Offshore events were run. Because of insufficient entries the Class A and Class C Enduros were not run. The Class B (7.5cc) event was won by Dot Prather running a Prather Deep Vee that was powered by a K & B 7.5 which was spinning a JG 3I 21 prop on 60% nitro fuel. Gary Frank drove his Muck Streaker to second place. He used an O.S. .46, I-27X prop and 40% fuel. Al



The 1981 World's Championships for 1/8 gas cars was held in Indianapolis, Indiana, USA from June 27 to July 5th. This brand new track surface was on the parking lot of Castleton Square shopping mall.

1981 WORLD'S CHAMPIONSHIPS



IFMAR, the International Federation of Model Auto Racers, composed of ROAR, EFRA, & JMRCA, sanctioned this event which was sponsored by Futaba radlos. The Indy R/C Car host club built this combination driver's stand, radio impound and scorer's building.



The start of the Main Event showing the infamous "First Turn," which was the cause of numerous contacts at the beginning of each qualifying heat.

The 1981 World's Championships for 1/8 gas R/C cars was held in Indianapolis, Indiana, USA on July 5th. 138 racers from all around the world began to arrive in Indianapolis on June 26 to participate in the 3rd World's Championships. The 1st W.C. was in 1977 in Pomona, California USA, and the 2nd was in 1979 in Geneva, Switzerland. Although Japan has been offered the opportunity to host a World Championships, they have respectfully declined, until they feel they are able to accept the

responsibility for such an undertaking. The next W.C. in 1983 will be in Europe.

This race was being sponsored by Futaba radios, and all the racers are grateful to Futaba for helping to make this a great race. I, personally, believe that it was Futaba's FP 2F steering wheel radio, introduced about 6 years ago, that helped R/C cars grow so fast. The reliability of this radio has made R/C cars more enjoyable for everyone. The Indy R/C Club, headed by Superman — Joe Werner, held the event. Joe did an incredible job of

organizing over a 1½ year period, and together with Ralph Spencer, Jack Mueller, Bob Leckran, Bruce Oakley, Terry Hagen, Tim Wilson, Sam Picheloup and others, got the permission to use the parking lot of Castleton Mall. They completely resurfaced an area for the track, ensuring a super smooth, high traction track and built a semi-permanent drivers stand, timers room and radio impound area. They also had a completely covered drivers pit area with a huge tent covering large pit tables. A special thanks must

1981 WORLD'S CHAMPIONSHIPS

| PLACE | NAME | COUNTRY | QUAL. | CAR | MOTOR | RADIO |
|-------|---------------------|---------|-------|------------|-----------|------------|
| 1. | Arturo Carbonell | USA | 3 | Delta | Picco | Delta-Ko |
| 2. | Ermes Tadiello | Italy | 8 | SG | S.T. | Sanwa |
| 3. | Katsunori Kondoh | Japan | 1 | Kyosho | O.S. Max | MRC |
| 4. | Ishihara | Japan | 4 | Delta | OPS | KO |
| 5. | Gary Culver | England | 6 | PB-IS | Picco | JR |
| 6. | Roberto Bortolamasi | Italy | 5 | SG | S.T. | Sanwa |
| 7. | Steve White | England | 7 | PB-IS | Picco | JR |
| 8. | David Lecat | France | 9 | PB-IS | Picco | Multitplex |
| 9. | Peter Bervoets | Holland | 10 | Serpent | O.S. Max | Futaba |
| 10. | Ralph Burch, Jr. | USA | 2 | Associated | K & B-Lee | Futaba |



By Gene Husting

FOR 1/8 SCALE GAS R/C CARS

also go to Roy and Roberta Moody and Mike Reedy for helping to run the races. Their efforts can only really be appreciated by someone who has done this before. Thanks from all of us.

About six of our group arrived at the track about 5 p.m. on Friday, to find Gary Kyes, Hank Smith and about fifteen other racers from Italy, South Africa and a couple other countries practicing on the track. We thought practice began on Sunday, but it didn't take us long to get our cars out and get a few laps in. The track was smooth, the traction was already good and would only get better. The high driver's stand gave a good view of the track. The layout of the track was good, definitely a driver's track, although I would have preferred more straightaways. This track would be difficult to pass on.

Saturday was Tech Inspection day. Cars were teched, except for tires which could easily be changed. Each

racers' radio was checked with a spectrum analyzer and tagged and, I must say, even with the many varied frequencies being used, there was hardly any radio problems the whole week.

Sunday was the first day of practice and our first chance to see drivers from all around the world. Many drivers we already knew and there were many new ones we were seeing for the first time. It was two years since our last get together, and it would be interesting to see who had made the most progress. The Americans were certainly the most advanced group of racers in 1977, taking all 10 Main event positions at the first W.C. in Pomona. Two years later, the rest of the World started to catch up, and in 1979 in Geneva the Americans had 5 places, Europe 3 and Japan 2, in the main event. By now, the driving and preparation skills were evening out around the world. But the Europeans

were ahead of us in developing fully independent suspension cars. The AMPS car, and the new PB cars from England were racing, as well as the Mantua car from Italy. Prototype independent suspension cars were also being raced by Phil Booth, and Dave and Debbie Preston of England, designers of Associated's IS car and Ronnie Ton and Peter Bervoets with their Serpent prototype IS car. All of the other cars were of the conventional type. Most of them with either gear or ball type differentials or solid rear axles.

The practice days were set up so that the racers were divided into 3 groups of about 40 racers. One group would practice from 6 a.m. to 10 a.m., the next group 10 a.m. to 2 p.m. and the last group 2 p.m. to 6 p.m. The groups would rotate each day so that one day you would practice 6 to 10, the next day 10 to 2 and the last day 2 to 6. This allowed people to sleep in some days,



The very popular 1981 World's Champion, Arturo Carbonell, USA (center), drove his Picco powered Delta car to an easy victory. Katsunori Kondoh, Japan (on the left), was Top Qualifier of the event with his Kyosho car and finished 3rd in the Main. Ermes Tadello, Italy, had a great race with Kondoh, and finished 2nd in the Main.



Katsunori Kondoh showed everyone how to qualify fast with his O.S. Max powered Kyosho car turning a record 37 laps in 10 minutes, 6.04 seconds, with two 36 lap backups.



2nd place qualifier, and the fastest American qualifier was the incredible 13 year old Ralphie Burch, Jr. from Texas, USA. Ralphie's K & B powered Associated car was the only car to turn two 37 lap qualifying heats with a 3rd time of 36-6.01, missing his 3rd 37 lap time by only 1 second.

go sightseeing other days, or get an early evening night out. I think this was an excellent procedure.

Our group contained USA drivers, mostly Associated, plus the English and German Teams, and others. Our first look at the P.B. IS cars was quite impressive. They were quite fast on opening day, as was expected. It was possible for them to put all the power down on the ground, so their extra weight didn't seem to be any great disadvantage. Most, but not all the PB drivers seemed to delight in running into and straight through other cars in their heats. At first, I just thought it was due to the excitement of the first time on the track, and they would settle down to actual racing, instead of playing bumper cars. However, it only got worse, even in spite of the numerous requests by Roy Moody from the announcers stand threatening to black flag these drivers. Finally, a driver's meeting

was called explaining the black flag and move over flag. However, this was prior to the Main event, which was 3 days too late. We're so used to seeing good close racing, such as Arturo Carbonell and Bill Jianas racing side by side, lap after lap, each with the skill to put the other over the wall, but each of them doing their utmost to keep from touching the other's car. This is racing. Japanese drivers also respect other cars on the track. Europe is going to have to decide soon, whether they're going to race or play bumper cars.

As I said, not all, but most of the PB drivers were like that. Gary Culver, driving a PB car, was in my heat, and we had no problems whatsoever. Gary was standing next to me on the driver's stand, and he was shaking so much, I thought he was going to drop his transmitter, but the shaking sure didn't affect his driving. It was super.

We had expected the traction to increase faster than it actually did, due to a couple reasons. Every time we'd get some oil on the track increasing traction, it would rain washing some of the oil off. Tuesday afternoon practice got rained out as well as Wednesday Afternoon practice. Something else affecting traction was fewer than normal amount of cars using castor oil in their fuel. Most of the Europeans and many Americans were using synthetic oils. The synthetic oils do not give the track the same amount of traction as the castor oil. We were expecting the track to get to a high traction point that it actually never reached. And then the rain would come. Thank you for the tent, Joe! Now I know what it was for.

Wednesday was supposed to be the first day of qualifying, but a brand new computerized lap counting system, that unfortunately was never previously used due to lack of time, failed to perform correctly. So



All the drivers were provided large pit tables with chairs. The garage area was completely covered with a large circus size tent. In the beginning I thought it was to provide shade, which really helped, but now I'm not too sure its primary function was to provide rain shelter.

Wednesday turned into another practice session.

Thursday was the first official day of qualifying requiring that all drivers be at the track from 7 a.m. to 7 p.m. A driver's meeting preceded events, explaining starts, etc., and what happens if it rains, etc. Then a totally unexpected thing happened. It was announced there would be no minimum weight limit on cars. This was quite a surprise as the official World's Championship Driver's Handbook stated there would be a minimum 5 pound limit. We later found out the Italian cars weighed 4.4 pounds and some of the Japanese cars weighed less than 5 pounds. A great way to start events.

As this was the first day we got to see all the cars run, there were some surprises. The Japanese and Italian cars were looking very good. The starts of the races became all important to achieving a good time. The problem was, the cars accelerated from a stopped position at the starting line, which worked very well. But they then went down a 75 foot straight into a very slow 5 mph turn. Even if you were first into the turn, it allowed the slower cars to catch and crash into you, before you could get through the first turn. This kept many a good driver from getting his best possible time, along with the bumper cars previously mentioned. Fair for all, but hardly an ideal situation, and it was too late to change once qualifying started.

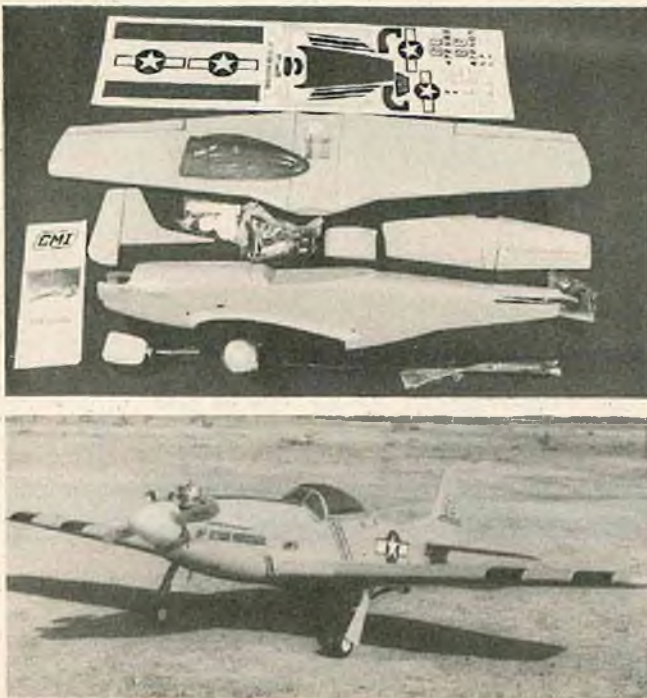
After the first day's qualifying, everyone knew who Katsunori Kondoh was. Kondoh, from Japan, was the first to turn 36 laps in the 10 minute qualifying rounds. His car looked extremely good on the track and there was no question as to how

SATURDAY'S TOP 40 QUALIFYING DRIVERS

| | | | |
|------------------|--------|--------------------|--------|
| 1. White | 37/604 | 21. Mariami | 36/611 |
| 2. Tadiello | 37/607 | 22. Takagi | 36/613 |
| 3. Lecat | 37/611 | 23. Royet | 36/614 |
| 4. Bervoets | 37/611 | 24. Phelps | 36/615 |
| 5. Mochizuki | 37/611 | 25. Mizushima | 35/601 |
| 6. Jianas | 37/613 | 26. Kobagashi | 35/601 |
| 7. Hank Smith | 37/614 | 27. Booth | 35/603 |
| 8. Davis | 37/616 | 28. Gene Husting | 35/605 |
| 9. Greeno | 36/603 | 29. Curtis Husting | 35/606 |
| 10. Mueller | 36/604 | 30. Kimrey | 35/606 |
| 11. Groschl | 36/604 | 31. Gjerdsde | 35/607 |
| 12. Pledest | 36/605 | 32. Katsura | 35/610 |
| 13. Pagdin | 36/605 | 33. A Suzuki | 35/610 |
| 14. Vittoriano | 36/606 | 34. Smeltzer | 34/602 |
| 15. Kyes | 36/606 | 35. Verger | 34/611 |
| 16. Repete Fusco | 36/608 | 36. R. Lee | 34/615 |
| 17. Ron Ton | 36/609 | 37. Galavis | 34/617 |
| 18. Errington | 36/609 | 38. Taki | 33/602 |
| 19. Kishi | 36/609 | 39. Ron Smith | 33/615 |
| 20. Sabattini | 36/610 | 40. Gerber | 33/618 |

RCM PRODUCT REVIEW

CMI P51D Mustang



SPECIFICATIONS

| | |
|--|---|
| Name | P51D MUSTANG |
| Aircraft Type | Sport |
| Manufactured By | California Model Imports P.O. Box 1695 Garden Grove, California 92642 |
| Mfg. Suggested Retail Price | \$102.88 |
| Available From | Retail Outlets |
| Wing Span | 40 Inches |
| Wing Chord | 7 Inches |
| Total Wing Area | 288 Square Inches |
| Fuselage Length | 34 Inches |
| Stabilizer Span | 15.5 Inches |
| Total Stab Area | 62 Square Inches |
| Mfg. Rec. Engine Range | .09-.10 |
| Recommended Fuel Tank Size | 4 Oz. |
| Recommended No. of Channels | 4 |
| Rec. Control Functions | Rud., Elev., Throt., Ail. |
| Basic Materials Used In Construction: | |
| Fuselage | Foam & Ply |
| Wing | Foam |
| Tail Surfaces | Foam |
| Building Instructions on Plan Sheets | N/A |
| Instruction Manual | Yes (10 pages) |
| Construction Photos | Yes |

RCM PROTOTYPE

| | |
|----------------------------------|---------------------|
| Radio Used | Kraft |
| Engine Make & Displacement | Fuji .09 |
| Tank Size Used | 4 Oz., Incl. in kit |
| Weight, Ready to Fly | 38 Ounces |
| Wing Loading | 19.0 Oz./Sq. Ft. |

SUMMARY

WE LIKED THE:

Metal engine mounting plates. Complete die-cut decal sheet. Well-engineered. Everything fits together perfectly.

WE DIDN'T LIKE THE:

Canopy material. A heavier grade of plastic would hold shape better.

Are you a flier, not a builder? Is your old faithful on the workbench in a basket and you can't stand sitting at the field watching everyone else fly? Then take heed and try California Model Import's new P51D Mustang; it is an all-foam scale sport plane all ready to fly. You can be in the air overnight, all that is necessary to do is to drop a .10 engine in the nose, glue on the tail, add your radio, connect the pushrods, and you are ready to fly.

Every piece of the kit is packaged neatly in plastic film. The larger than usual box is necessary to insure all parts will survive shipping. The bottom layer contains the packaged small parts such as: fin and rudder, stabilizer and elevator, and all other small parts and hardware. The ailerons and moving parts on the tail are pre-hinged. The wing and die-cut decal sheet are layered in the top half of the box. Both the wing and fuselage are well-protected from scratches and indentations by bubble plastic packaging.

Construction:

We were impressed by the metal engine mounting plates. They are used to mount the engine to the glass filled engine mount. They put in down thrust and side thrust quite ingeniously. Two sets of these plates are included in the kit, one for an O.S. .10, the other for an Enya .09; each is so labeled. We did not use either engine in the RCM prototype but are rather sure that these two mounts will fit most engines in production.

The fact that it is a "one adhesive kit" was another feature we liked. The only "sticky" needed is 5-minute epoxy --- that's it. The front surface of the firewall must be sealed with epoxy and a Q-Tip makes a great paint brush. While the epoxy is still wet, the engine mount is added for extra strength.

The cap on the front of the tank exactly fits the hole in the firewall and the engine mount; when buttered with a small amount of silicone bathtub seal (a second adhesive? Naaaaa!), the opening into the tank compartment is sealed.

About the only building you have to do is to add the

empennage to the fuselage and the air scoop to the wing. The canopy fits neatly onto a preformed section of the top of the fuselage. If you paint the canopy as directed, there will be no epoxy drips to mess up the looks of your canopy. Keep the plane out of the sunshine in a hot automobile, the tremendous heat that builds up there will melt and deform the canopy.

All moving surfaces are pre-hinged, one small hinge is added between the rudder and fuselage. Add the wheels to the bottom of the wing and you are ready to install the radio.

We used Kraft KPS 12 servos which fit the servo tray quite well; slop was minimal. The holes in the die-cut servo tray should accommodate most any except the very small servos.

There were no plans, just a 10 page instruction booklet. Each step is accompanied by clear photos or a drawing. No

to page 154



**Text and Photos
by Howard and
Bev Power**

1981 IMPBA

The 1981 IMPBA Internationals and World Enduro Championships were held August 8-16 in Indianapolis, Indiana. The hosts for this regatta were the members of the Indy Model Boat Club who worked hard all week to make a smooth running contest. Their President Marten Davis, and Co-Contest Directors Fred McBroom and Greg Huey did an excellent job of organization and leadership in providing facilities that were some of the best we have seen at a model boat race.

One of the nicest touches was a gigantic circus tent which had been erected to house the registration desk, transmitter impound, a concession stand and the contestants, sheltering all from the hot sun and occasional rain showers. Each boater was provided a space for tables and boats and a certain fellowship developed among those under the big top. Model boaters seem to be the most congenial group of people we've been around and, as this was our first IMPBA contest, we appreciated the opportunity to meet other members and share boating techniques and stories. It was especially fun to meet those whose names we had seen in articles or race results and to renew friendships made at other Nationals.

Racing began on Saturday with the running of the World Enduro Championships. Present were entrants from England, West Germany, Northern Ireland, New Zealand, Italy, South Africa, Wales, Sweden, Norway, Australia, and the U.S. (Unfortunately, we did not witness any of the first three day's events as we were driving to

Indianapolis from the NAMBA Nats in Amarillo, Texas.) Our good friend, Jim Gale, provided us with photographs and information for the events we missed. The enduros run two hour heats for three motor size classes. The boats were quite different from those we use for racing in the U.S. They featured rubber shock mounted engines and very quiet muffled tuned pipes to meet the noise restrictions. These boats were so quiet you could actually hear what I believe was propeller noise. They were not nearly as fast as the boats we run, but their reliability was orders of magnitude above what we in the U.S. are used to. The Class A two hour enduro was won by Robert Berson of South Africa, who ran 208 laps with an Alpha hull, powered by an OPS 21, an AMPS prop and 40% fuel. Second place winner was Mario Braghieri of Italy, driving a Kankar hull with a Picco engine. Taking third was Peter Collier of New Zealand with 192 laps, with his K & B powered Dart-20. Winner in the B Class two hour enduro was Marco Olivieri of Italy, with 239 laps, with a Silak powered by an OPS. Second was Vittorio Gobetti of Italy, driving an OPS powered Tido 2 for 219 laps, and third, with 216 laps, was Nigel Wong of New Zealand, driving an O.S. powered Dart-40. The C class first place winner was Mario Braghieri of Italy. He had 269 laps with a Dolphin hull and a CMB 90 engine. Second in C class was Peter Collier, 246 laps with a Dart-90 and an O.S. engine; and Eric Jeffery of South Africa won third place with his Delphino powered by a CMB, at 207 laps.

On Sunday, after the conclusion of

the World Enduro Championships, Team Marathon was run for the first time at the IMPBA Internats. Teams consisted of two pit men and two drivers running two boats for 100 laps, alternating boats and drivers every 10 laps. Any engine size was allowed in this event as long as both boats were similar in design, had the same engine size and were on the same frequency. Each team was timed separately, with penalties assessed for hitting buoys (3 min.), going dead (3 min.), and hitting a dead boat (5 min.). Retrieval of boats was allowed so no matter how long a retrieval might take, the clock was stopped on that team when a boat died and began again when the boat again began the race.

The team from Texas of George Harris and George Grossman, drove a Witchcraft hull with a K & B 7.5 motor turning a JG 31 22 prop on 40% fuel, and a Westcoast Marine Formula 40X hull powered by an O.S. 46, and X450 prop and 40% fuel. Their pit men, Charles Chavin and Scott McGuffin, helped them run the 100 laps in 46 minutes and 40 seconds. This would have been a good time but the team had a total of 8 penalty minutes and they wound up in 3rd place. Second place winners were John Kemmut and Scott James who, with Pitmen John Copeland and Terry Keeley, both drove Muck Streakers with OPS 65's, propped with Ocutra 1460's using 25% fuel. The U.S. teams were outrun in this event by the Italian team of Mario Braghieri and Paulo Gualdi who ran the same boats they ran in the enduro championships. The winning time was 37 minutes and 2.38 seconds establishing a record for this event.



INTERNATIONALS

Following the Team Marathon, the Deep Vee Classic was run for three classes: B (20 sized engines), D (40 size), and E (60 size). The Classic consisted of three heats of ten minutes each with the total number of laps determining the winners. Retrieval of dead boats was allowed so sometimes the drivers not only had to drive the course, but had to avoid the retrieve boat which had the right of way. You also really had to watch out for the retrieve boat wake which could be deadly if you crossed it wrong or too fast. In class B the high lap winner was Steve Babin with 62 laps. Second place was Bob Stephens. John Copeland drove a Prather hull with an O.S. Max .21 engine, an Octura 1.6 prop and 50% fuel, placing 3rd. In class D Deep Vee, Steve Babin took another 1st with 75 laps. Second was Bud Swenson driving his Sightler hull powered by a K & B 7.5 with an Octura 1750 prop and 40% fuel. Third was Dianna McGuffin driving a K & B 7.5 powered Witchcraft hull using an Octura X455 prop and 40% fuel. In the E class the winner was John Copeland with a 70 lap total, Bob Gabehart 2nd, and Scott James finishing 3rd driving an OPS 65 powered Muck Streaker using a 1460 prop and 25% fuel.

On Monday the Outboard event drew 29 entries for four rounds of oval heat racing. An El Diablo hull using a G-25 prop on 25% fuel and driven by John Shannon of Dallas, Texas, took 1st place. Second was Hap Mulvany of Florida driving a Phoenix. Hap used a home-built stainless steel lower unit, a Hughey 3" pitch 3 bladed prop and 25% fuel. Third place was Jim Feters driving one of the few tunnel hulls to compete. His Hughey tunnel used a

number 2 Hughey prop and 50% fuel.

The scale event was also held on Monday and drew 13 scale models of unlimited hydroplanes. The love plan was used to determine the winner. Three preliminary heats were determined by drawing. Points earned in this heat racing determined the top six boats to run in the final heat. Steve Ball of Ft. Wayne, Indiana, was the last qualifying driver to make the final heat. As he described it, he was also the last one in the heat to cross the start line. He was driving a scratch-built Notre Dame with a Super Tigre 65, an Octura 1465 prop and 40% fuel. This combination and his driving ability were what brought him to the finish line ahead of all others to secure the championship. The lead had changed twice in the last lap but Gary Pruesse of Chicago took 2nd with his Miss Budweiser and the 3rd place finisher was a Timex driven by Kent Volmerding of Ft. Wayne.

Monday's events also included the under .30 cubic inch displacement enduros and the over .30 c.i.d. enduros. These enduros were run in three ten minute heats with the total laps for all three determining the winners. Robert Berson of South Africa won 1st place with 56 laps in the under .30 c.i.d. class using the same boat with which he won the A class World Enduro Championship. Second was Bob Stephens and 3rd was Peter Collier. Vittorio Gobetti won 1st place in the over .30 c.i.d. class with a total of 85 laps. Second was Nigel Wong from New Zealand and 3rd was Scott Jones driving the same boat with which he won the E Deep Vee class.

We arrived on the race scene late Monday evening. We had just come

from the Amarillo NAMBA Nationals and our equipment was adjusted for the 4000 foot altitude there. We had hoped to be able to change set-ups and do some testing, but racing ended so late Monday that there was almost no open water available.

On Tuesday, the action was at Dandy Trail Lake where the 1/16 mile straight-a-way Trophy Trials were held. In this competition each of the 140 plus contestants attempted to get the highest possible two way average speed through the traps. This was the first of three events in which one could compile points toward the U.S. 1 title for his boat class.

There was no open water in the morning so the only chance each contestant had to get their needle setting close was during the 2 minutes given to get your boat started and on the water. Once on the water, one could waive the post-time and take their first pair of "right to left" and "left to right" passes. You could then bring the boat in and change only the glow plug and the needle setting in hopes of getting a better speed. The second pair of passes had to be made before the five minute time limit was exceeded. If your boat went dead anywhere beyond the 10' retrieval rod length from the shore, your day was over. Straight-away time trials are not exactly spectator oriented. In fact, one contestant was overheard saying, "Never have so many done so little, for so long." We did, however, see some impressive runs in the hydro classes. The water was very calm which made it difficult for the monoplane drivers to get fast speeds. Almost everyone had their boats trimmed for heat racing water conditions and, as a



E Hydro Heat Racing winners: (L to R) 1st John Ackerman, 2nd Bud Beard, 3rd Ben Beard.



B Mono Heat Racing: 2nd Robert Berson, 1st Bill Schafer, 3rd John Shannon.



E Mono (Heat): 1st Scott McGuffin, 2nd Bev Power, 3rd John Kemmet.



D Mono Straight-Away: 1st Ed German shown with Andrea and Trey.



B Hydro (Heat): 1st Ed Hughey, 2nd Marten Davis, 3rd Mert Mischnick.



D Mono (Heat): 1st George Grossman, 2nd Bob Schoenan, 3rd Ed German.



Howard Power explaining his Wing Ding set-up to Ed German.



Part of Team Italy.

IMPBA RESULTS

World Enduro Championships (2 hrs.)

Class A

1. Robert Berson — S. Africa
2. Mario Braghieri — Italy
3. Peter Collier — New Zealand

Class B

1. Marco Olivieri — Italy
2. Vittorio Gobetti — Italy
3. Nigel Wong — New Zealand

Class C

1. Mario Braghieri — Italy
2. Peter Collier — New Zealand
3. Eric Jeffery — S. Africa

Team Marathon

Mario Braghieri & Paulo Gualdi
(New Record, 37 min. 2.38 sec.)

B Deep Vee

1. Steve Babin
2. Bob Stephens
3. John Copeland

D Deep Vee

1. Steve Babin
2. Bud Swenson, Jr.
3. Dianna McGuffin

E Deep Vee

1. John Copeland
2. Bob Gabehart
3. Scott Jones

Outboard

1. John Shannon
2. Hap Mulvany
3. Jim Fetters

Scale Hydro

1. Steve Ball — Notre Dame
2. Gary Preusse — Miss Budweiser
3. Kent Volmerding — Timex

Straight-Away Trophy Trials

B Mono

1. John Shannon — 41.32 mph
2. Dave Preusse — 40.46 mph
3. John Copeland — 38.53 mph

B Hydro

1. Karen Hughey — 60.89 mph
2. Ed Hughey — 57.76 mph
3. Bob Fox — 57.32 mph

D Mono

1. Ed German — 44.02 mph
2. Dianna McGuffin — 43.22 mph
3. Beverly Power — 43.02 mph

D Hydro

1. Jay Maguire — 67.16 mph
2. Ed Hughey — 66.96 mph
3. Howie Whitaker — 65.21 mph

E Mono

1. George Harris — 50.61 mph
2. Scott McGuffin — 49.12 mph
3. Bob Finn — 46.87 mph

E Hydro

1. John Shannon — 77.18 mph
2. Louis Durand, Jr. — 75.63 mph
3. Stuart Barr — 73.17 mph

F Mono

1. John Copeland — 48.23 mph

F Hydro

1. Fred McBroom — 77.58 mph
2. Tom Pretzfeld — 76.14 mph
3. Jay Maguire — 74.48 mph

Oval Trophy Trials — 1/3 mile

B Mono

1. Dave Preusse
2. Bill Schafer
3. David Spicer

B Hydro

1. Ed Hughey
2. Bud Swenson
3. Marten Davis

D Mono

1. George Grossman
2. Bud Swenson
3. Bob Schoenan

D Hydro

1. Bob Finn
2. Bud Beaird
3. Richard Aldridge

E Mono

1. Scott McGuffin
2. Bob Finn
3. Skip Horstman

E Hydro

1. Steve O'Donnell
2. Bud Beaird
3. Marten Davis

F Mono

1. David Spicer
2. Eric Jeffrey

F Hydro

1. Charles Chauvin
2. Tom Pretzfeld
3. Jay Maguire

Oval Heat Racing

B Mono

1. Bill Schafer
2. Robert Berson
3. John Shannon

B Hydro

1. Ed Hughey
2. Marten Davis
3. Mert Mischnick

D Mono

1. George Grossman
2. Bob Schoenan
3. Ed German

D Hydro

1. Jay Maguire
2. Ed Hughey
3. Buck Scofield

E Mono

1. Scott McGuffin
2. Bev Power
3. John Kemmet

E Hydro

1. John Ackerman
2. Bud Beaird
3. Ben Beaird

F Mono

1. Vernon Barnes
2. David Spicer
3. Malcolm Bray

F Hydro

1. Roger Moran
2. Bob Finley
3. Sid Broughton

U.S. 1 Winners (Overall high points for Straight-Away, Oval Time & Heat Racing)

B Mono — David Preusse

B Hydro — Ed Hughey

D Mono — George Grossman

D Hydro — Jay Maguire

E Mono — Scott McGuffin

E Hydro — Bud Beaird

F Hydro — Tom Pretzfeld

Presidents Cup — Ed Hughey

High Point Champion — Jay Maguire

result, those boats were very glued in. The water conditions were perfect, however, for the hydro drivers. The lake was situated north-south and most runs were obviously faster going toward north. One by one, class by class, each entrant tried to get a good speed so that they would place in the top fastest few of each class.

The clock measuring the elapsed time for the 1/16 mile was started & stopped by manually operated switches that were operated by judges at each end of traps. Those judges use a war surplus tank sight to judge when to punch the button controlling the clock. Almost instantaneously a digital readout of elapsed time appeared, then the speed appeared. At the end of a "back to back" run, the average speed was shown so that judges, spectators, and contestants could see the results. As in all straight-away contests we have witnessed, there were several inconsistently high speeds recorded on some passes which caused some controversy among contestants whose speeds were lower. Unfortunately, the judges are only human and errors in sighting will always crop up with this type of system. I understand that the Indy Club is working on a laser timing

to page 146



D Mono Oval Trials: 1st George Grossman.



B Hydro: US #1 Ed Hughey, 1st Oval Trials, 1st Heat Racing, 2nd Straight Away.



John Shannon, 1st B Mono Straight Away, 1st E Hydro Straight Away.



Scott McGuffin, US #1 E Mono.



George Harris, 1st E Mono Straight Away.



David Spicer, England, 1st F Mono Oval Trials.



Steve Ball, 1st Scale Hydro.



Steve O'Donnell, 1st E Hydro Oval Trials.



David Preusse, US #1 B Mono.



Karen Hughey, 1st B Hydro Straight Away.



IMPBA President Fred McBroom, 1st F Hydro Straight Away.



Jay Maguire, 1st Hydro Straight Away.



Bud Beard (right), 2nd D Hydro Oval Trials, with his dad Ben.



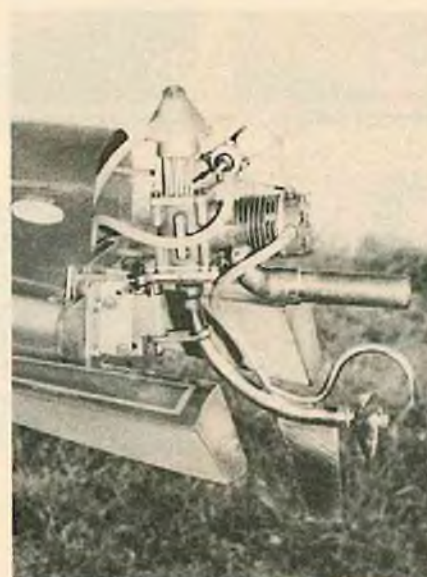
Bob Finn, 1st D Hydro Oval Trials.



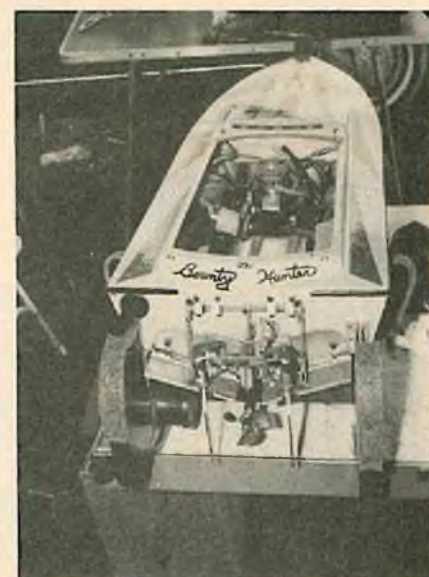
Charles Chauvin, 1st F Hydro Oval Trials.



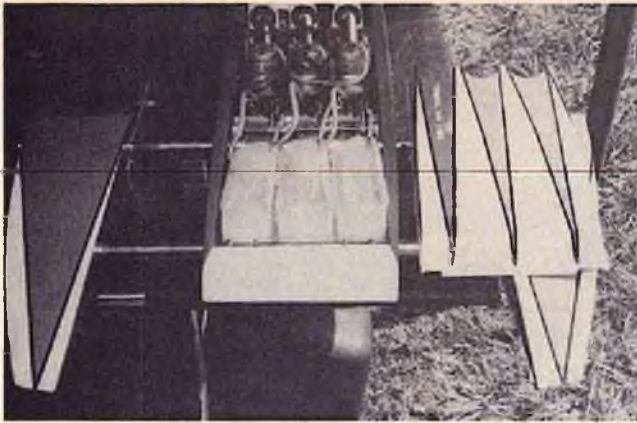
This OPS 90 Deep Vee uses 4 channel radio for throttle, needle valve, rudder and trim plates.



An unusual Outboard drive unit.



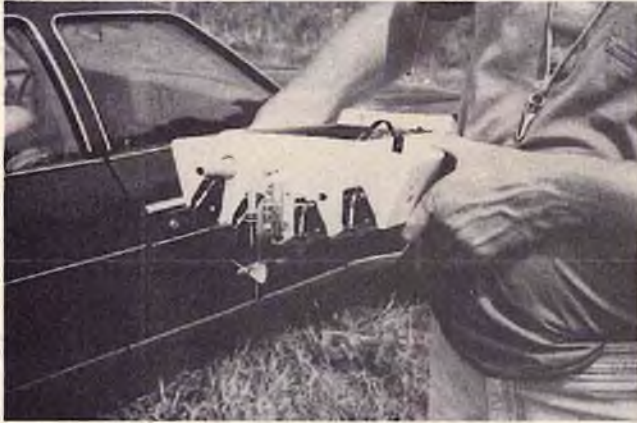
Skip Horstman's Deep Vee has R/C adjustable trim plates.



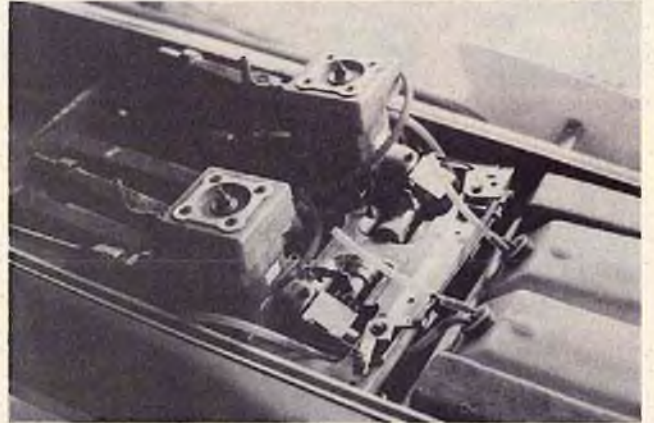
Larry Beals' Hydro is powered by three K & B 7.5 mills.



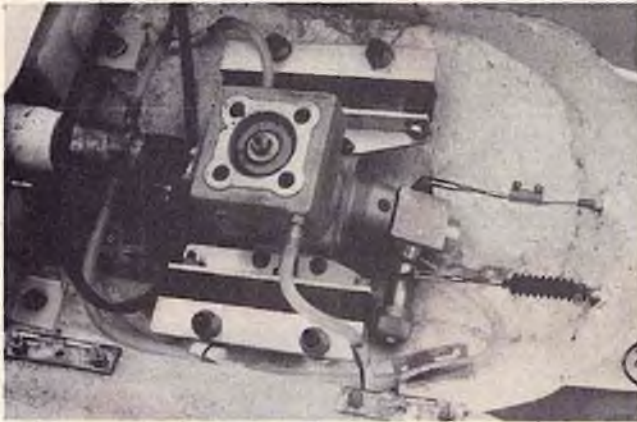
D. Hughey shows glove snagged in water, causing boat to flip.



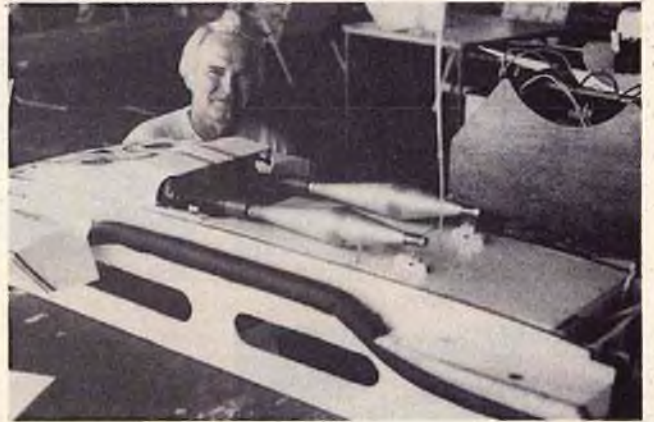
A Prather A Deep Vee sporting a steerable strut outdrive.



Sid Broughton's scratch-built F Hydro uses twin CMB 90's.



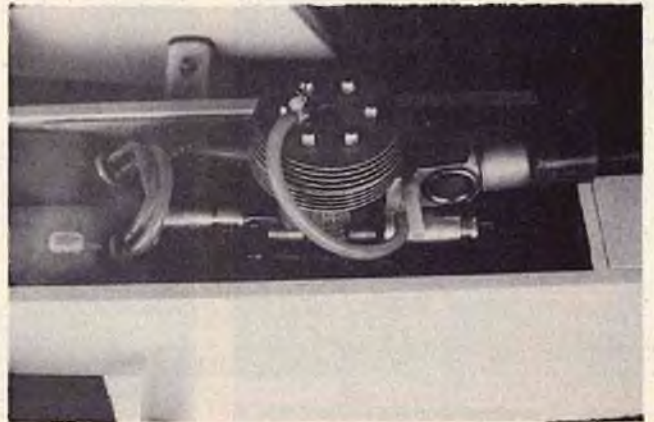
David Spicer, England, has R/C mixture control on CMB 90.



Sid Broughton with his scratch-built F Hydro.



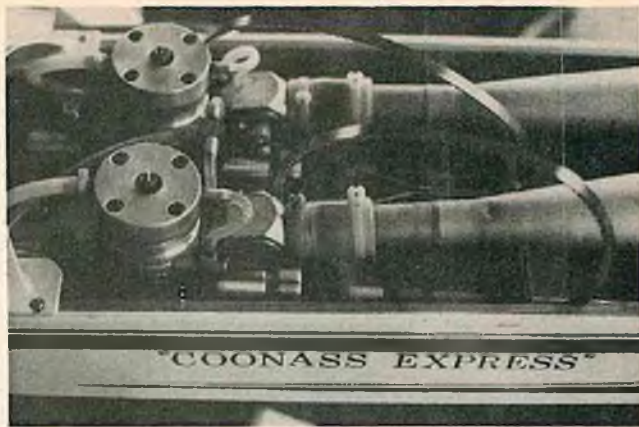
Fred McBroom F Hydro is a Pinckertt Twin Gator.



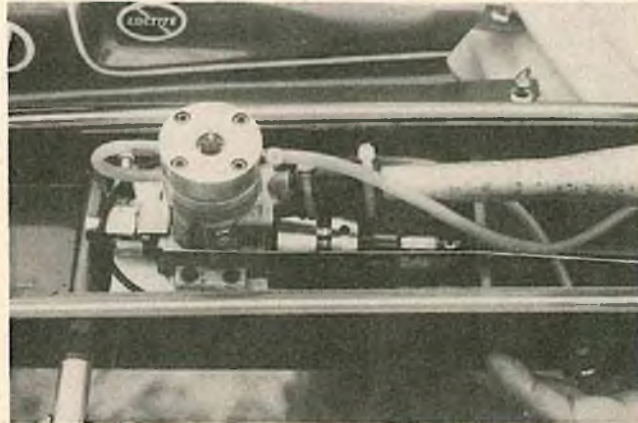
Pi-co 65 Installation in Steve O'Donnells' Boss 60.



Scott McGuffin explains the Ted Cloer designed prop gauge to Dee Hughey.



Twin OPS 65 installation in Charles Chauvin's F Hydro.



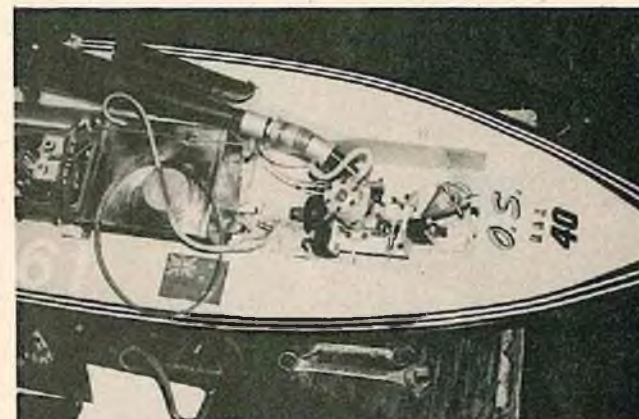
OPS 65 installed in John Ackerman's E Hydro.



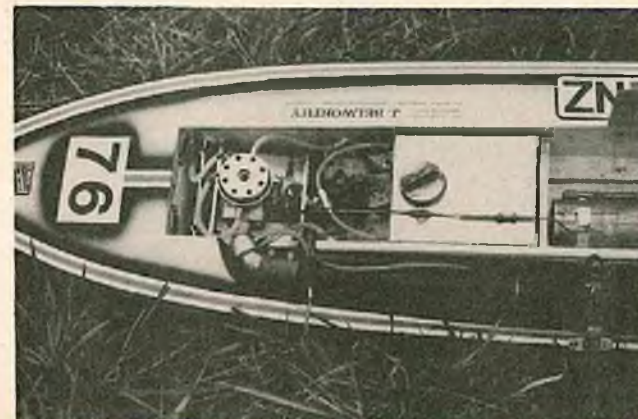
A stack of outriggers with 3.5, 7.5, and 60 size engines.



Hobbyoxy reps David Lee and Ken Williams helped with repairs.



Nigel Wong, New Zealand, uses rubber shock mounts on engine.



Peter Collier, New Zealand, drove this boat to 2nd in C Enduro.



Randy Williams, driver, is working on engine; Terry Forehand, mechanic, is eating.

3rd R/C

By
Al
Doig



The first Soaring World Championships were held in South Africa, in 1977. The second, in Belgium, in 1979, and the third was held near Sacramento, California, July 12 - 17, 1981. Teams from 22 countries around the world posted scores.

In choosing a world-class soaring site, Sacramento, California, in July, would not have been my first choice; it can get a tad warm. The site was a sheep ranch with close cropped hay stubble. Although some contestants were less than enchanted, I thought the site quite acceptable. By standing on a box one could see the nearest shade, which turned out to be a tree, two hundred miles away.

For those not familiar with F3B tasks, there are three: Speed, Distance, and Duration. The Speed and Distance course is 150 meters in length, marked with 1/4 lap marks for partial completions in Distance. Speed is 2 laps of the course (up and back), with the fastest time awarded 1000 points, and all others, a percentage compared with the fastest. Distance

text to page 141

SOARING WORLD CHAMPIONSHIPS

Final Individual Contestant Scores

| | | | |
|---------------|--------------|---------|---|
| Holley | USA | 11360.9 | |
| Bannister | England | 11283 | |
| Schaeffer | West Germany | 11274.7 | |
| Decker | West Germany | 11264 | |
| Vauth | West Germany | 11033.7 | |
| Keil | South Africa | 10966.5 | |
| Edberg | USA | 10942.1 | |
| Givone | Italy | 10909.3 | |
| Wasner, Jr. | Austria | 10869.8 | |
| Learmont | Australia | 10766.3 | 1 |
| Leaderach | Switzerland | 10744.8 | 1 |
| Frank | Denmark | 10711.5 | 1 |
| Spavins | South Africa | 10699.9 | 1 |
| Dyer | England | 10570.3 | 1 |
| Schweinsberg | Netherlands | 10538.7 | 1 |
| Gerneke | South Africa | 10444.8 | 1 |
| Bourbon | France | 10425.8 | 1 |
| Binkert | Switzerland | 10346.6 | 1 |
| Blake | USA | 10310.7 | 1 |
| Smith | Australia | 10099.1 | 2 |
| Lorenzoni | Italy | 10049.2 | 2 |
| Harvey | Australia | 9953.2 | 2 |
| Dagna | Italy | 9932.2 | 2 |
| Torres Manuel | Spain | 9775.3 | 2 |
| De Santi | Brazil | 9731.5 | 2 |
| Hassing | Denmark | 9644 | 2 |
| Stoll | Switzerland | 9590.9 | 2 |
| Carratala | Spain | 9570.5 | 2 |
| Nicaud | France | 9537.4 | 2 |
| Hasegawa | Japan | 9528.9 | 3 |
| Herzog | Belgium | 9320.4 | 3 |
| Peterson | Denmark | 9268.8 | 3 |
| Huret | France | 9178.3 | 3 |
| Cordero | Argentina | 9172 | 3 |
| Ten Holt | Netherlands | 9119.2 | 3 |
| Remy | Belgium | 8820.3 | 3 |
| Wasner, Sr. | Austria | 8677.6 | 3 |
| Worral | England | 8659.2 | 3 |
| Gueta | Israel | 8581.5 | 3 |
| Cagnacci | Brazil | 8504.4 | 4 |
| Wright | Canada | 8427.2 | 4 |
| Ottoy | Belgium | 8413.7 | 4 |
| Bock | Luxembourg | 8383.5 | 4 |
| Ohtaka | Japan | 8357 | 4 |
| Nave | Israel | 8308.4 | 4 |
| Lyra | Brazil | 8278.9 | 4 |
| Torres Ruben | Argentina | 8238.7 | 4 |
| Lanzas | Spain | 8132.5 | 4 |
| Sanders | Netherlands | 8126 | 4 |
| Gustavsson | Sweden | 7967.4 | 5 |
| Lundgren | Sweden | 7714.5 | 5 |
| Sfreda | Luxembourg | 7636.4 | 5 |
| Rovera | Argentina | 7445.8 | 5 |
| Yamamoto | Japan | 7417.8 | 5 |
| Fiel | Austria | 7161.1 | 5 |
| Davidovitz | Israel | 7107.9 | 5 |
| Kemp | Luxembourg | 6719.8 | 5 |
| McKay | Canada | 6310.2 | 5 |
| Nyberg | Sweden | 6124.9 | 5 |
| Lopez | Mexico | 4760 | 6 |
| Fernandez | Peru | 4177.8 | 6 |
| Gago | Peru | 3561.9 | 6 |
| Pettigrew | Canada | 2544.5 | 6 |
| Danker | Mexico | 1920.7 | 6 |
| Apaza | Peru | 1145.9 | 6 |
| Monguin | Mexico | 000000 | 6 |



The winner, Dwight Holley, Conn., launches.



Carl Blake, USA, snuggles up to the center of the spot.



Don Edberg, USA, straight wing Sagitta, with allerons.



Winning teams; West Germany, USA, South Africa.



West German team with their airplanes; Ralf Decker, Wilhelm Schaffer, Werner Vauth, and Manager Dr. Helmut Quabek.



Roy Spavins, South Africa, waits for working time to start.



French team; Patrick Nicaud, Oliver Bourbon, Jacques Huret.



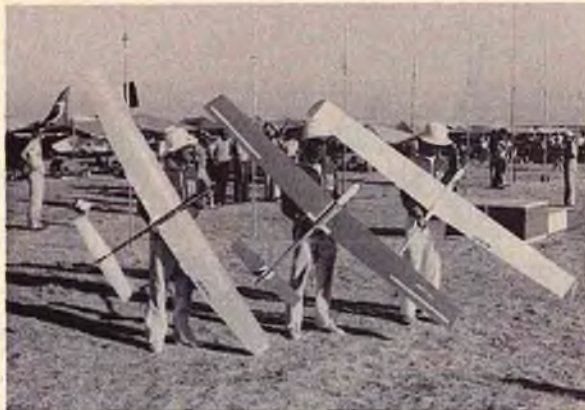
French Team Manager, G. Brouquieres, is having more fun than flier Jacques Huret.



Reudi Binkert, Switzerland, with the high technology "Spartakus."



Sean Bannister's "Algebra" held by team manager while Sean prepares.



Japanese team; Noboru Yamamoto, Masaru Hasegawa, Hitoshi Ohtaka.



Wilhelm Schaffer, West Germany, with his "Stratos."



Peruvian flier, Gago, tests radio.



Danker, Mexico, youngest competitor at 14.



Ralf Decker, West Germany (2nd in 1979), prepares to launch.



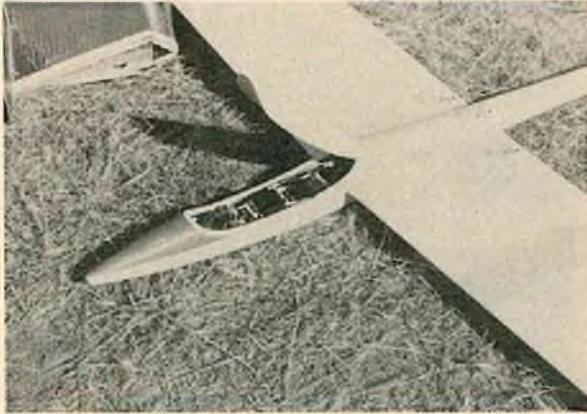
Italian team setting up winch.



Karl Wasner, Jr., flying. Team manager, Fredolin Fritz, used sighting device to call turns (Austria).



Sleek Austrian ship. Typical of high performance sailplanes.



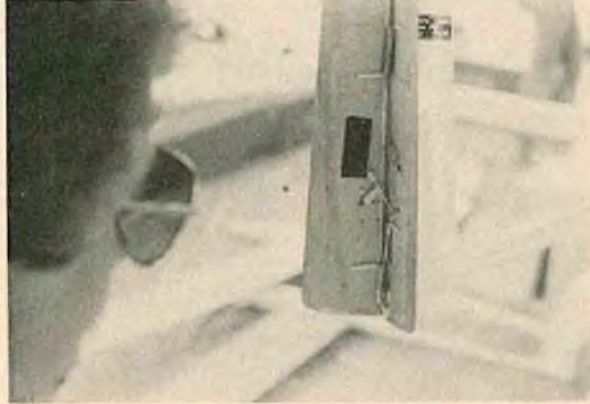
Canopy air brakes were common.



Gago, Peru.



Sean Bannister, England, examines section of the Swiss Spartakus wing.



Swiss Spartakus had split rudder air brake.



Dave Peltz at the console of the Mighty CompuCorp 675. Dave did a super job of scoring the Championship. 10 min. after last flight, scores were printed.



Transmitter frequencies were monitored with HP 8566 Spectrum Analyzer, with plotter and desk top computer.



South African, Nord Gerneke, launches.



Wilhelm Schaffer, West Germany, placed third.



Marco Lorenzoni, Italy, waits to launch.



Sean Bannister, England, and his "Algebra."



Note upturned tips of Argentine ship.



Harry Sanders, Netherlands, launches. Note circular sighting device.



"Windcheater feels good, doesn't it?" Dave Dyer, England, talks to Nord Gerneke, South Africa (#51).



Italian team: Michele Dagna, Marco Lorenzoni, Franco Givone.



Karl Wasner, Jr., Austria. Note open canopy speed brake.



The Canadian Cannon roars. Brian McKay launches Dave Wright's FMF.



Carl Blake, Woodinville, Wash., with his FMF sailplane.



Sailplane of Hasegawa, Japan.



John Grigg, AMA Pres., awards 1st Place to Dwight Holley, USA; Sean Bannister, England; and Wilhelm Schaffer, West Germany, 2nd and 3rd, watch.



Second place Sean Bannister, England.



Joris Ten Holt, Netherlands, lands his "Super Alba," note flaps.



Swedish team, with Manager Lars Strannegard (kneeling), Bengt Lundgren, Thore Gustafson, Per Nyberg.



Pettigrew, Canada, with FMF.



Winner Dwight Holley, USA, with his plane "Gobbler."



Romain Sfredda, Luxembourg, prepares to launch.



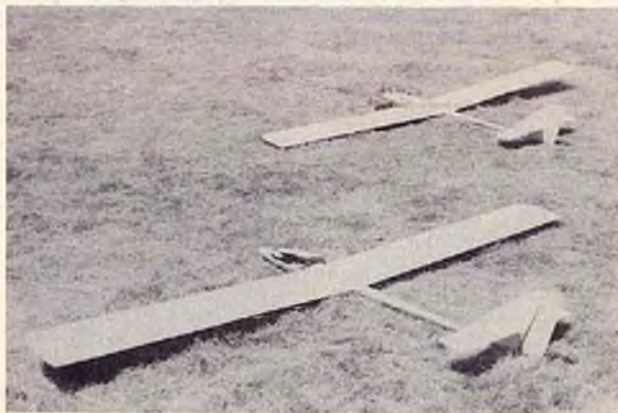
Youngest contestant, Danker, Mexico.



Niels Hassing, Denmark, holds own design up for identification.



Luxembourg team: Romain Sfredda, Rene Bock, Marcel Kemp, manager Raymond Pavan.



Israeli aircraft.



Japanese team waits for preparation time to begin.



Hubert Bitner and Horizon — 2nd Place Expert.



Robert Gorham and Cricket — 1st Place Intermediate.

1981 AMA R/C HELICOPTER NATIONAL CHAMPIONSHIPS

The 'NATS' were nice. I'm glad that I took the trouble to attend and I'll try, by the means of this column, to give you some feel for what it was like to be there. First of all, you should know that the number of contestants at the AMA Nats is always uncertain until the actual day of the competitions. Pre-entry is often misleading by a factor of two or three to one. For instance, the pre-entries in the R/C helicopter nationals this year totaled seven! Right up to the last day for late on-site registration (cost \$67!) but the

By John Gorham

final number of actual contestants amounted to about twenty. This may not seem a large number to you for a National Championship. However, all of the people who **did** fly were accomplished (or at least enthusiastic) R/C helicopter 'nuts' and certainly the two days of competition were very memorable and enjoyable, I'm sure, to all of us who attended. The number of contestants and spectators probably averaged around four to five hundred and they all seemed to be having a great time.

The R/C helicopter part of the Nationals is usually held in the same location, and back-to-back with the R/C sailplanes. This time it was not so and we were situated, finally, on a local High School playing field. It was a very nice venue for R/C helicopter flying though — plenty of clear air around, very few trees to come up suddenly and smite our helicopters in mid-air — no electrical wires to worry us either, just a lot of clear and (as it happens) relatively blue sky, and green grass. Because there were not too many people present we were able to line up our vans, motor homes and cars very close to the actual competition flight line so that everyone was able to sit on the grass or in their vehicles and watch the action. The weather held out nicely for us too, although we did have blustery winds on one of the days, but, thank goodness, no rain.

The worthy C.D. of this operation was, again, Dwayne Stephens, who has done this job for several years now. Dwayne is an avid R/C helicopter flier (he'd have to be to do this job more than once) and he has organized and/or C.D.'d many national competitions for us heli-fliers.

People came to the Nats from all over the country, as far south as Miami, Florida; as far north as New York; from Washington State and, of course, from Los Angeles. Because of the air controller's strike, many of the attendees drove there, as I did. Being the new proud owner of a new Saab 900-D Turbo I was reasonably happy to blame the strike on the need to drive



Mike Mas and Hybrid — 1st Place Expert.

instead of fly, so drive I did. As usual with the Nationals, nearly all the hotels were full, not only because of us modelers but also many other conventions which took place at the same time in the San Antonio area.

On the evening before the competition there was lots of warm-up flying by the various prospective contestants (and others, such as me) and this is always an interesting event to participate in and watch. Those who are determined to win are constantly adjusting and tuning their helicopters and running through the maneuvers. Non-combatants, such as yours truly, are able to get out their helicopters and fly around a bit and just imagine what "would have been" if they had entered.

Well, the competition, as usual, starts off with a meeting of the pilots by the Contest Director (C.D.) to agree all the ground rules and the general organization of the competition. There were two teams of three judges each team who, for the first day at least, sat out at a table on the flight line in the hot sun and suffered. During the second day we were able to provide a shade canopy for them. The judges in these competitions should be remembered and commended since they sit there and patiently watch each of the many maneuvers the contestants have to do throughout all the many rounds that each class flies. For instance, we flew around about seven full rounds and with something like twenty fliers — that's 140 rounds. Now, in each round there's probably an average of 30 maneuvers to judge so each judge must look, consider and register over 2,000 scores, assuming there are two teams of judges. That's a lot of looking and writing. So hats off to you guys who do the judging for us in these competitions.

I'm not sure if all the readers are familiar with the AMA National competition classes and requirements so we'll just have a quick run-down on them to fill you in. There are three basic classes: Novice, Intermediate and Expert. The Novice maneuvers consist of stationary hover for 15 seconds; hover forward 15 feet, hover back 15 feet, hover to the right 15 feet, hover to the left 15 feet (landing, of course, in each case). The Novice then has to do a constant heading figure eight and land, and that's the end of his maneuvers. Each maneuver is judged on the smoothness and accuracy of execution.

The Intermediate grade includes all the maneuvers of the Novice grade but, in addition, the helicopter also has to take off, fly a 45 degree climb-out to level flight for 100 feet; he then makes a 90 degree procedure turn, returns on the flight path over

1981 R/C HELICOPTER AMA NATIONAL CHAMPIONSHIP CONTEST RESULTS

| EXPERT CLASS | | | |
|-----------------------|-------------------|------------|---------------------------|
| Place | Name | Helicopter | Points (2 round total) |
| 1st | Mike Mas | Hybrid | 26,280 |
| 2nd | Hubert Bitner | Horizon | 25,685 |
| 3rd | Tony Frackowiak | Heli-Boy | 20,555 |
| 4th | Larry Jolly | Competitor | 19,495 |
| 5th | Bill Curtis | Cricket | 16,480 |
| 6th | Bruce Buchanan | Heli-Boy | 14,620 |
| INTERMEDIATE CLASS | | | |
| 1st | Robert Gorham | Cricket | 9,435 |
| 2nd | Jay Williams | Horizon | 9,405 |
| 3rd | Robert Belluomini | Kalt | 8,820 |
| 4th | Hugh Jones | Horizon | 8,370 |
| 5th | David Traeger | Horizon | 7,740 |
| 6th | Andy Dignan | Heli-Boy | 7,590 |
| NOVICE CLASS — OPEN | | | |
| | Greg Howard | SX 81 | 4,275 |
| NOVICE CLASS — JUNIOR | | | |
| | Jay Trowbridge | Horizon | 3,795 |

his head, commences a figure eight, completes the figure eight and then comes on in an approach to land. After landing he then takes off again and does a 360 degree fly around himself, coming in to land for the last time. Again he is judged on precision and smoothness of flight.

The Expert class includes the Novice maneuvers and the Intermediate maneuvers, but, in addition, the flier has to select from a number of advanced maneuvers and perform as many as he can of these within a three minute total time limit. These maneuvers include a constant heading vertical figure eight, constant heading inside loop, constant heading outside loop, normal conventional loop, full roll, stall turn, stall turn with 540 degree rotation descending, autorotation, pilot walk around (in which the pilot has to walk around the helicopter while it is in a stationary hover). All in all a complete test of the machine and pilot's capabilities. The Expert maneuvers, however, have been much criticized in the past because of the great speed with which they have to be carried out. This year again confirmed, certainly in my view, that the Expert maneuvers are more a test of how fast you can do them rather than how accurately or smoothly you can do them. And, in addition of course, many of the maneuvers do not reflect what a real helicopter is able to do and so there is also some controversy in this regard, too. There is no question in my mind that this should positively be the last time that we attempt to cram so many somewhat unrealistic maneuvers in such a short time. It really isn't pretty to watch (although it is exciting!) and I don't really believe it's any longer a

test of skill as much as it is a test of fast flying and good strategic planning.

Well, let's get to the actual competition itself.

Novice Class

There was only one entry in each of the Novice classes — Open and Junior — so each of the entries naturally won his class. This seems a great shame to me because there are so many people who are able to hover a helicopter well enough to have entered the Novice class at the Nationals. Perhaps a lot of fliers don't realize how simple the requirements are and also that their own skill capabilities are probably good enough to justify at least entering. It would be nice to see more Novices entered next year — it really is a lot of fun and you can gain a great deal of knowledge of R/C helicopter flying just by attending one of these events.

Intermediate Class

The Intermediate class this year caused considerable interest. In previous years Intermediate class has not been too hotly contested and the winner is often obvious within the first round or two. This year it was certainly different. First of all, the standard of flying was very high and secondly, the 1st, 2nd and 3rd positions were hotly contested right up to the last round. This event had the most entries and the most competition but, I'm glad to say, a lot of good, friendly rivalry between the top few fliers and certainly no bad feelings. By the way, this atmosphere seemed to pervade the whole competition and it was a very happy Nationals this year, especially from the contestant's viewpoint. Well, the Intermediate class was won by a

page 137

RCM PRODUCT REVIEW

Sig
KADET JUNIOR



Sig concedes, now that the big Kadet has ailerons, that there is still a need for a three channel trainer, one of reduced size, for owners of simpler radios — a plane which is more compact, economical, and powered with a lower size engine. Kadets are not new to us. A number of years ago we built our first one; recently we built the aileron version. Needless to say, we were fascinated with little sister when it was first advertised and immediately set out to acquire a kit.

Knowing it was designed by Claude McCullough and executed by Sig, we were greatly pleased and not the least bit surprised by the quality look we found upon opening the box. We did wonder how they packed all that airplane in such an unusually trim flat box. It was all there, from the complete hardware set and excellent wood, to the well-detailed set of plans.

It is recommended that you unfold the plans, reverse fold the creases and allow them to lay flat for a couple of days to absorb a bit of humidity. Then they should be rolled, print side up and stored while you are reading and studying the 31 page building and flying instruction book.

Construction:

Now that you have read and re-read the instruction book, unroll the plans on your workbench and prepare for a surprise. You will see a feature that we, who do a lot of building, have looked forward to for many years. The wing is upside-down to the rest of the plans. This enables you to build the wing from the top side of the plans. Excess plans are either rolled at the back of the workbench or hang down over the back edge. For years we have fought the plans hanging down the front of the workbench covering all the drawers making them inaccessible. The remainder of the plans, in addition to the construction layouts, are covered with information, notes, and building instructions. They are full quality throughout.

SPECIFICATIONS

| | |
|--|------------------------------|
| Name | KADET JUNIOR |
| Aircraft Type | Sport |
| Manufactured By | Sig Montezuma, Iowa 50171 |
| Mfg. Suggested Retail Price | \$39.95 |
| Available From | Both Mfg. & Retail |
| Wing Span | 48 Inches |
| Wing Chord | 9 Inches |
| Total Wing Area | 430 Square Inches |
| Fuselage Length | 39 Inches |
| Stabilizer Span | 18 Inches |
| Total Stab Area | 100 Square Inches |
| Mfg. Rec. Engine Range | .15-.25 |
| Recommended Fuel Tank Size | 4-6 Oz. |
| Recommended No. of Channels | 2 or 3 |
| Rec. Control Functions | Rud., Elev., Throt. |
| Basic Materials Used In Construction: | |
| Fuselage | Balsa & Ply |
| Wing | Balsa & Ply |
| Tail Surfaces | Balsa |
| Building Instructions on Plan Sheets | Yes |
| Instruction Manual | Yes (31 pgs.) |
| Construction Photos | Yes |

RCM PROTOTYPE

| | |
|----------------------------------|------------------|
| Radio Used | Kraft |
| Engine Make & Displacement | O.S. .25 |
| Tank Size Used | 6 Oz. |
| Weight, Ready to Fly | 44 Ounces |
| Wing Loading | 14.7 Oz./Sq. Ft. |

SUMMARY

WE LIKED THE:

Plans layout (see text). Landing gear mounting.

WE DIDN'T LIKE THE:

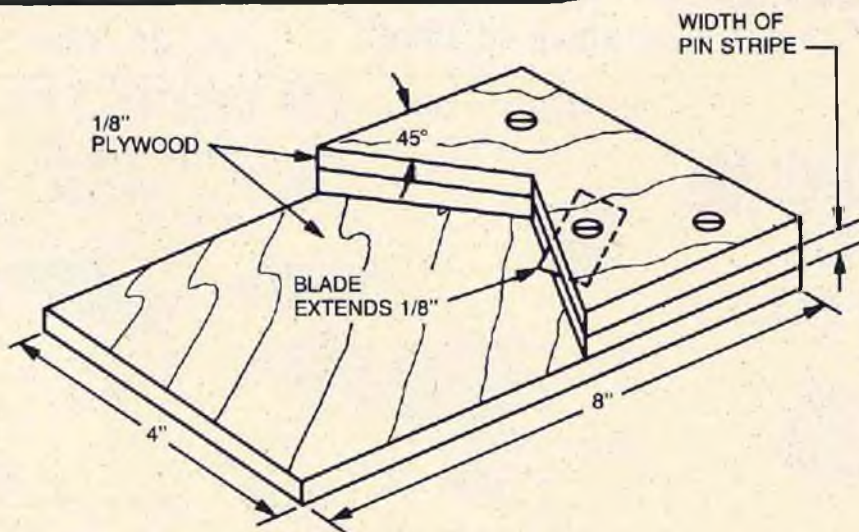
Nothing worth mentioning.

Very little of the kit is die-cut, only wing ribs and ply parts. Most of the balsa cutting is done by the builder. For instance, the fuselage sides are your building boards, all longerons, vertical spacers and doublers are glued to the pre-printed fuselage side thus assuring flat non-warped construction. When all has been glued on, then and only then are the sides cut from the balsa sheets. Most of the tail surfaces were also cut from printed sheet. The wing tips, which are on the sheet, were shaded in such a way to make the bevel cut automatic and, amazingly enough, they are mirror images thus preventing two lefts or two rights.

The fuselage was a snap to assemble, the ply formers fit into grooves made by spacing the doublers. This rigid box construction kept everything at right angles to the building surface. The aliphatic working glue used was Sig-Bond and the epoxy glue was Sig's Kwik Set which sets up in 4-5 minutes; these are both excellent adhesives. Pay close attention to the plans and instruction book, they are very explicit as to where to use aliphatic glue and where to use epoxy.

to page 135

FOR WHAT IT'S WORTH



This idea for a practical masking tape stripper was sent in by David Hilliard, Renfrew, Pennsylvania.

When painting a model, different width pin striping is sometimes required. David made a holder for a razor blade like the sketch shows. The razor blade is bolted between two pieces of plywood and bolted in place. The roll of tape can then be placed against the razor blade and turned around. This will cut 1/8" deep. David has one holder that cuts 1/8" pin stripe and another one that cuts 3/8". When using a roll of masking tape that is 3/4" wide, cut both sides of the roll on the 1/8" cutter and then, using the 3/8" cutter, cut down the center of the roll. When the tape David has just cut is used up, he repeats the operation over again.

The 1/8" width can be used for pin striping and the 1/4" can be used for masking the rest of the model off.

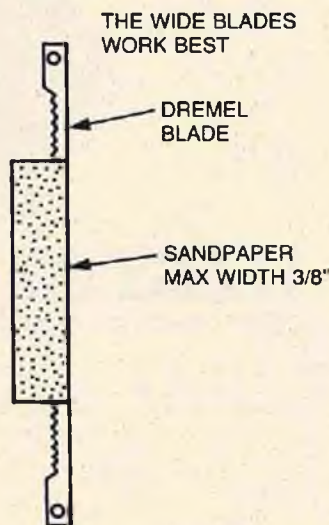
David likes to use electricians tape for masking and pin striping because it goes around, bends very nicely and gives a nice sharp edge.

Anthony Nowak, Oak Forest, Illinois, gets extra service from his Dremel Moto-Shop Jig Saw with the following suggestion and sketch.

Turn your Dremel Moto Shop Jig Saw into a Jig Sander. Don't throw away worn Dremel Moto Shop Blades. Super Glue small pieces of sandpaper to both sides of the blade as shown (clamping in a vise after the application of the glue insures a good bond).

Don't extend the sandpaper beyond the back of the blade as there is little clearance

in the base plate. Then sandpaper can be stiffened by first attaching to thin plastic sheet. When a section of sandpaper is worn, adjust the base plate to expose a fresh surface or simply peel off and glue on new pieces. This device works well for precision sanding of small pieces. Don't exert too much side pressure while sanding, so as to avoid any possible damage to the saw.



A shop rash solution was submitted Val Marchesoni, Mesquite, Texas.

This is a good way to remove dents and dings from a finished wing or fuselage. Simply take a wad of cotton, lay it on the dent and stick a pin through the cotton into the dent. Wet the cotton and leave overnight. Wicking action will swell the wood back to the original shape. Val uses the pin and cotton method on dings put in picture frames here in his frame shop. Works great!

This helpful hint was submitted by Mark Ewert, College Place, Washington. When ready to choose the color of covering material for your next project, it's a good idea to take some sticks 1/2" square by 8" long covered with the different colors of your favorite covering material and hold them side by side to see which ones look good together. This is especially helpful when you can't hold the rolls of covering material up side by side because you are shopping by mail.

Donald Fisher, Tacoma, Washington, suggests a clever method of making pushrod ends that we haven't seen before.

To provide for additional length adjustment at the servo end of wooden rudder and elevator pushrods, Don has found the following to be an easy and effective means.

The 1/4" or 5/16" rod is bored 1" deep from the end with a 1/8" drill, being careful to keep the hole straight. A 1" length of inner yellow grooved nyrod is inserted approximately 7/8" as shown in the sketch.

A half dozen pin holes through the wood to the nyrod are made on each side and a few drops of cyanoacrylate are run down the grooves and pin holes (not into the tubing). When dry, run a 2/56 tap into the tubing and screw in the threaded end of the 1/16" servo rod bent and cut to length as desired.

This method gives ample adjustment with a strong neat appearance and all the king's horses and all the king's men can't pull it apart, not even the king's servos.



This neat idea came from John Kerr, Logan, Utah. When you need to do some touch-up painting to match a color from an aerosol can, blow the paint through a drinking straw into a small container. There will be very little overspray and you can easily control the amount used.

Send your hints & kinks to RCModeler, P.O. Box 487, Sierra Madre, Ca. 91024 & win a free book from RCM's Anthology Library Series if your idea is used.

I had one helluva good time at Chuck Cunningham's Fourth Annual Jumbo Fly-In . . . and so did everyone else, including about one thousand spectators.

Big Bird aficionados came from far and wide on July 18 and 19 to show their planes, fly without the pressure of competition, make new friends and, of course, renew old friendships. Come to think of it, I'm really not too sure about that "wide" part, but Claude Brown and his quarter-size Mitchell Wing certainly did come far . . . from that distant and almost mythical land of Sierra Madre, where the local natives have finally picked up on the more important technological advances, such as proportional control and indoor plumbing . . .

When I arrived at 0820, it looked like most everyone had gotten there ahead of me; four or five planes were already in the air, the flight line appeared to be a solid line-up for a hundred yards or more, and the parking area was almost plumb full.

I put my C-3 together in jig-time (which equates to a good solid 20 minutes) so I could get at least one flight in before the day got hotter and wetter. I had a relaxing twenty minutes of soaring with some touch and go's mixed in, while a southerly twelve knot wind blew right down the runway.

As soon as I had a chance to look around, I could see that the theme this year was definitely variation, which was in direct contrast to the last fly-in

so far removed from realistic flight due to size, sound, and the horrible non-scale manner in which they're usually flown, that I was just not interested in trying to close the "realism" gap. But, the big bird has closed that gap considerably, just by being a Big Bird, and very little more is needed to achieve the flavor of flying a real airplane.

In-between flights on my C-3, I made numerous treks up and down Thunderbird Field and feasted my eyes on some mighty fine looking aircraft. I couldn't help but linger just a little longer near Bud Moix's Antic Bipe, Mike Cook's big Ag-cat, Gail Phillips' P-40, Don Bitts' yellow Stearman, Randall Snow's Mulligan, Ed Hamlin's Fleet, Don Langer's

4th ANNUAL

By Al Alman

JUMBO FLY-IN

Any time a group of RC'ers get together, you'll find that a small percentage are usually hard-core fliers, while the rest zero in on building, engines, radios, or finishing.

And that's the way it was at Thunderbird Field. Almost all of the fifty-seven pilots flew at least once, but only a handful really racked up the air time. It seemed that the same guys were always flying: like Kerry Roberson from Little Rock Air Force Base, who dazzled everyone as he continually alternated between his Byron Pitts and his Bridi CAP 20; Houston's Carl Orbison and his B-I-G, impressive, third-scale, scratch-built Smith Mini-Plane; George Paris from Garland, Texas, whose deft touch made his overweight Dively Skybolt behave like a slim, trim ballerina; Ron Ables from Highland Village, Texas, who made flying his Byron Pitts look ridiculously easy; Al Willaert from Carrollton, Texas, whose bevy of twin .60 and awesome .90 drive-powered Big Stiks literally chewed up the hot, humid air; Ardmore, Oklahoma's Bryant Harmon and his rock-steady Elco Cherokee 235; and me and my Balsa USA Aeronca C-3, hogging the 72.400 pin and loafing around those clear south Ft. Worth skies.

According to Chuck Cunningham, the festivities were supposed to start at 0830 on Saturday morning, and he tried hard to get there before anyone else, but it didn't work out that way. Many of the big bird buffs camped overnight in the area and were spring loaded to the "go" position when the park opened at the crack of dawn.

when kit-built planes, such as the Byron Pitts and the Nosen P-51, were so numerous you could hardly keep from stepping on one. This year there were more scratch-built and multi-engined aircraft, and more unique flying machines like Ken Bina's Beta-Bird and Claude Brown's Quarter Scale Mitchell Wing.

There was also a more definite swing toward scale; and it's understandable because these bigger birds look, feel, smell, sound, and fly much like the "real thing." (This aura of almost total realism is impossible to achieve with smaller methanol powered aircraft.) Also, the nine or ten foot airplane more closely approaches the efficiency of its full-scale counterpart (someone forgot to shrink the air molecules when we started flying with those small glow engines), so there's far less worry about loading up the bird too heavily and ending up with a "lead sled" that's gonna take-off, fly, and crash all at the same speed. Yet another great advantage is the huge amount of room found inside these Jumbos, which allows any builder to literally throw himself into his labor of love. All of this, of course, gives new hope to those of us who are congenitally unhandy and uncoordinated.

Even I've gotten caught up in this scale thing. Until becoming obsessed with larger planes, I was like most other Sunday fliers . . . content to fly most anything. As far as I was concerned, putting 9,386 rivets on any airplane was a waste of good flying time. The smaller planes had seemed

Citabria, Lloyd McAlister's Sopwith Camel, Tom Weems' GeeBee Model E, J.W. Jones' Fleet, Jerry Rhodes' Bristol Scout, Jim Hess' Monocoupe, and Justin Shumway's Fokker D-VII.

I was especially interested in seeing Justin's scratch-built Fokker because pictures of his construction technique had wetted my appetite. He'd built a truly scale airframe, and I wasn't disappointed by the finished product; his D-VII was magnificent and reflected the caliber of craftsmanship borne of patience and experience. (Although he didn't fly that weekend, Justin called a few weeks later to report that his 27 pound, Kioritz-powered WWI bird had indeed done her thing . . . and very well, too, with just a few minor trim corrections needed.)

To be sure, there were some clinkers and clunkers there also, some of them having already become perennial favorites. But these flew just as well as, if not better than, their better looking cousins . . . and why not? Their owners had three or four years to iron out all the bugs and get a really good handle on things. Probably foremost among these was Tom Blakeney's Sweet Sixteen, an HP .61 powered, 20 pound craft that had a lot of wing and span loading going for it. I'd heard Tom's plane described as a "sort of Praying Mantis looking thing," which was probably meant as a compliment.

Another perennial favorite, but in this case far from an ugly duckling, was Rusty Allen's Hawk P-6E. Rusty and his Hawk, who both hail from

text to page 128



From Wichita, Kansas, Marvin Reese and his 30 lb. Nosen Gere Sport. Eastcraft Starter, Don Harris Smoke Sys., Quadra, with 20/6 Zinger prop.



Tom Weems from Hereford, Texas, with his beautiful 10 1/2 lb. 1/4 Scale GeeBee Model-E. Scratch-built from photos with Webra .91 turning a Top Flite 14/6 prop.



This Concept Fleet at 27 lbs. with a Kloritz, was built by J.W. Jones from Dallas. He built the dummy cylinders which added much to the scale look.



Hit of the fly-in was this 32 lb. scaled-down version of the Beta-Bird by Ken Bina of Topeka, Kansas. 3.7 Roper kept Snoopy scanning area for other flying machines.



Rusty Allen and his 28 lb. Hawk P-6E up from Austin, Texas. After 4 years, the bird was completed and ready to fly. With a Quadra turning a 20/6.



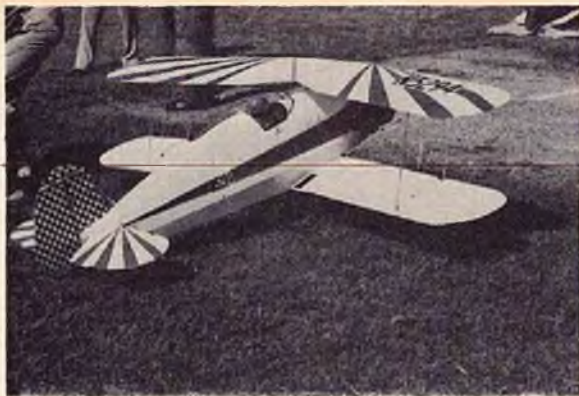
Wendell Roberts' and Randall Snow's 15 lb. Quadra-powered Piper Pawnee. Foam-board fuse with conventional built-up wing. Dynathrust 20/8 prop cut down to 18/8.



Wendell Roberts' modified (15" off of each wing) Nosen Cub. Quadra powered, 18/6 Dynathrust prop, at 16 lbs.



Al Willaert shows three of his twin drives: Two Big Stiks have twin .90's. Original design has twin .60's, with tuned pipes ... lotsa power.



Bob Forslund of Tulsa, scratch built this Bucker Jungmeister from Dave Platt's plans. Powered by a 2.0 McCulloch and a 20/8 Zinger.



Another Little Rock, Arkansas, entry was Jim Hess' scratch-built Monocoupe. Scaled up from M.A.N. plans, this beauty weighed 13½ lbs. with an O.S. .90 14/5.



Kerry Roberson, stationed at Little Rock Air Force Base, had his 20 lb., Quadra powered Byron Pitts. The Cookie Monster did the flying.



Randall Snow's Mr. Mulligan was from a Nosen kit, and weighed 20 pounds with a Quadra.



From Duncanville, Texas, came Don Langer and his "much modified" Nosen Citabria. A Quadra swinging a 20/6 pulled this 23 lb. beauty. Completely detailed.



Lloyd McAlester from Denison, Texas, had his Quadra-powered 20 lb. Sopwith Camel. Scratch-built from pictures and dimensions.



Gail Phillips, Houston, Texas, and his P-40, scratch-built from Nick Ziroll's plans. 25 lbs. with a Quadra 18/10 for power.



Some of the entries, pilots and spectators at this 4th Annual Fly-In.



Jerry Rhodes, Eagle Pass, Texas, brought his 23 lb. Quadra-powered Bristol Scout. Scratch-built from M.A.N. plans.



Two Grumman Ag-Cats from Houston, Texas. One in front by Don Meek at 10½ lbs. with an ST Bluehead .60. In rear is Mike Cook's at 27 lbs., Quadra powered.



Another Denison, Texas, representative, "Motel" Joe Smith had clipped wing Balsa USA Cub for everyone to look at. The Cub weighed 17 lbs. with McCulloch.



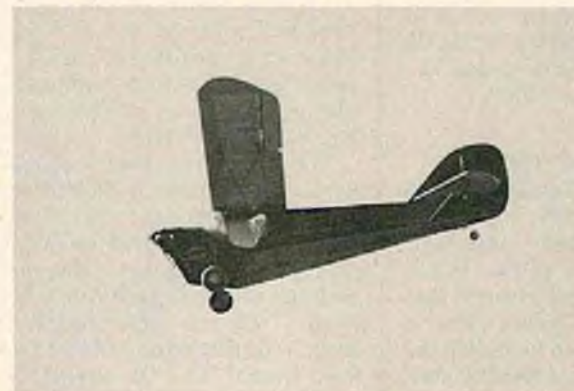
Carl Orblson of Austin, Texas, had Hustler MK II powered, 1/3 Scale Smith Mini-Plane. Scratch-built at 31 lbs. From Hal Osborn plans. Used a 22/6 Zinger.



Don't know who belonged to this P-51. Couldn't locate owner nor was it registered as an entry.



George Paris from Garland, Texas, and his Skybolt from a Dively kit. Powered by Super Hustler MK II, at 30 lbs. (5 lbs. nose ballast.)



Al Aliman and his Balsa USA Aeronca C-3 from Arlington, Texas. At 15 lbs., the C-3 flew well with old Enya .60 turning a 14/4 Zinger.



Chuck Cunningham's DoppelDecker had a Max .90 pulling the 80", 15 lb. creation.

HB.40 P.D.P.

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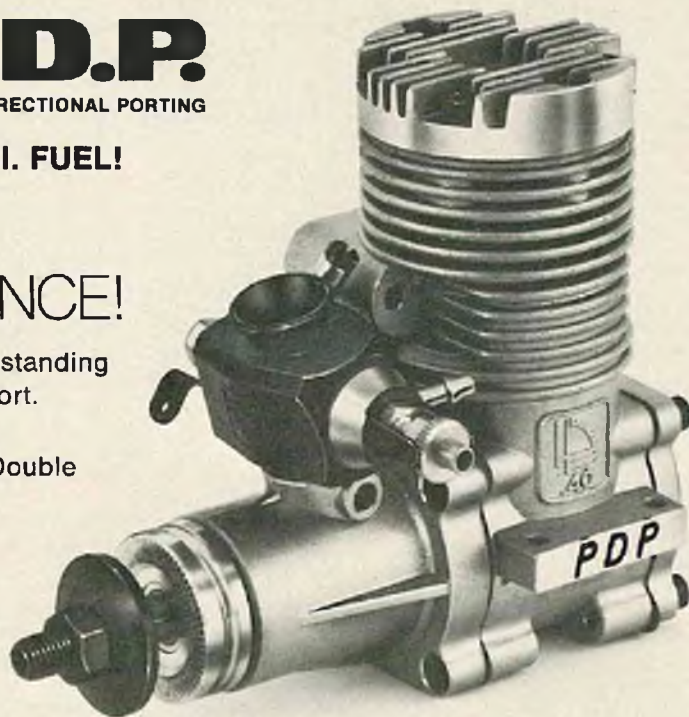
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| Cox 8130 | 125.95 | 88.00 | 2 no | Viking MK I F/G Fuse | 119.95 | 72.00 |
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| Futaba FP-3FN/S22 | 199.95 | 124.00 | 2 yes | Viking MK II | 79.95 | 48.00 |
| FP-3E6/S7 | 209.95 | 130.00 | 2 no | Viking MK II F/G Fuse | 119.95 | 72.00 |
| 4 Channel Dual Stick | | | | | | |
| Futaba FP-4FN/S26 | 309.95 | 192.00 | 4 yes | Drifter II | 22.95 | 14.00 |
| Futaba FP-4FN/S26 | 269.95 | 167.00 | 4 yes | Golden Eagle | 89.95 | 60.00 |
| FP-4L/S26 | 199.95 | 130.00 | 3 yes | Butterfly II | 59.95 | 34.00 |
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| Futaba FP-5FN/S16 | 319.95 | 198.00 | 4 yes | Drifter II Composite Kit | 54.95 | 33.00 |
| FP-SLK/S26 | 279.95 | 182.00 | 4 yes | Piece O' Cake Composite Kit | 51.95 | 31.00 |
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JUMBO FLY-IN

from page 92

Austin, have been at all of Cunningham's fly-in's: the first year his bird was barely bones; by the second fly-in he was about to start finishing; last year she was just about ready to go; and at this fourth Jumbo Annual she finally did get to go ... but not too far. Just as the 28 pound, Quadra-powered beauty broke ground, Chief Test Pilot Ted White realized he had a loose rudder connection and put the hawk back on the runway with minimum damage.

A different and delightful entry was Ken Bina's Beta-Bird, a scaled-down version of R.W. Hovey's homebuilt original. This high-wing pusher type has the pilot riding right up front on the business end; Ken's 32 pound version had a 3.7 Roper doing the pushing, while a well articulated, large, foam Snoopy pilot gave the spectators something to cheer about. Old Snoopy continually moved his head

from side to side, and on a low fly-by, it seemed as though he was really nodding "Hi" to everyone on the ground. Snoopy always got a big hand, even when the Beta-Bird was just taxiing.

The man who'd traveled farthest, Claude Brown, usually had a crowd around him and his quarter-sized Mitchell Wing. Claude also drew a nice round of applause for his flights, which were s-l-o-w and very realistic ... and he sold quite a few sets of his plans.

The plane with the most engines belonged to Ken Greer of Ft. Worth. This Stand-Off Scale Air Force C-130 sported two .40's and two .25's, weighed nineteen pounds, and had a 108" wing. She was nicely done in warpaint, but I felt she looked best on the ground because as soon as this bird became airborne any similarity to a cargo ship disappeared; she flew more like a four-engined pylon racer.

Decked out in American Airlines' colors was Bob Dorsey's Royal DC-3, with two K & B .40's filling the nacelles. Bob did admit to "redesigning" the wing a bit, and he enlisted Ted White to fly his pride and joy ... and once again "Ted Terrific" saved the day; this time an engine quit on take-off. Damage was minor, but Bob never did give it another go.

Who else but the wildly exuberant bunch from Arkansas would double the Midwest Beercat, stick a 6 HP West Bend on the front, make a sensational presentation to the Budweiser people, and promptly find themselves sponsored as the new Budweiser Show Team. Although they didn't represent Budweiser at this fly-in, they did have their big Beercat with them, and Kerry Roberson proceeded to put the 42 pound bipe through her paces. Designed and built by Wendall Roberts (with help from the others), the plane looked and flew well.

We did have a little extra excitement Saturday afternoon when some turkey, who had rifled a number of unlocked cars, nailed himself by side-swiping a vehicle as he tried to leave. He was immediately surrounded by a mob of irate R/C types who kept him "locked-in" until the local gendarmes arrived to take charge.

Besides doing the test-pilot bit for Bob Dorsey and Rusty Allen, the inimitable and irascible Ted White flew a Big Daddy using a flying seat designed and built by Ed Berryhill of Ft. Worth. Berryhill, who built the seat last winter, brings it out to the field when the spirit moves him, drops in a Futaba transmitter and goes at it; but only Ted White could make even that kind of flying seem easy, which, in fact, it ain't. Using your whole arm

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for control input (just like in the real birds), and not just thumbs or fingers, is a whole new experience.

Due to the amount of activity, the busy Mr. Cunningham flew his old DoppelDecker and his new "30% Flybaby" only once each, late Sunday morning just before the fly-in ended. The Flybaby looked very stable, which was a good thing 'cause after all, how many designers do you know who can also fly well?

Everything ran very smoothly both days because, as always, ninety percent of the work got done by ten percent of the people ... that ten percent being Jan Cunningham, who

gave hubby Chuck the kind of support you just can't buy.

Although none of the flying is judged, there are trophies given for the two most outstanding aircraft, the two best scale entries, the two best non-scale, and a special award for the guy who came the farthest. There's only one requirement for being included in this static judging: your bird has got to fly. "Hangar Queens" do not qualify for any awards.

The seemingly impossible task of picking which airplanes deserved what trophies fell on the strong shoulders of three brave volunteers: Dick Bohls, Dave Dingman, and Bill

Slater. For eight hours on Saturday and three hours on Sunday, these stalwart judges roamed up and down that steaming, sprawled-out flight line, determined to uphold the tradition of judging as passed down these many generations by Judge Roy 'Hang 'em High' Bean. With grim determination, they set about their self-imposed task by patting, probing, and pushing and, as if a measuring tape wasn't good enough, "Picky" Dicky Bohls insisted on using his new micrometer and calipers at every pit stop. I can certainly attest to the solid integrity of that fearless threesome; they couldn't be bribed, not even with

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And I finally learned why Mr. Cunningham issues so many numbered tags to each entrant. Even though these tags always get knotted up in shirt buttons, belt loops, landing wires, struts, receiver antennas, transmitter antennas, and especially frequency flags, they do help Chuck identify who belongs to the one or two transmitters that are inevitably left behind in the impound area. This year Bob Forslund's transmitter was forsaken and had to travel all the way back to Tulsa by itself. Even one of the spectators got into the act. He was at the airport, ready to head back to

Indiana when he realized his camera was missing. He phoned Chuck and, a short while later, was joyfully reunited with his errant 35mm.

Although the drawing for a 6-channel Futaba was open to anyone who bought a dollar raffle ticket, there were four other drawings that were limited to registered pilots only. Gary Thornton of Round Rock, Texas, won the A & M Prop Drive; Charlie Viosca of Farmers Branch, Texas, won a Jomar Coupler; H.K. Nelson of Blackwell, Oklahoma, won another Jomar Coupler; & Tom Weems, of Hereford, Texas, won the giant 5" screen, 3-way, AM/FM portable TV.

The brand, spankin' new Futaba was won by Marvin Reese of Wichita.

To wrap up the festivities, Chuck Cunningham presented trophies to the seven winners: Ken Bina of Topeka walked away with first in the Most Outstanding category for his Beta-Bird while Kerry Roberson and his Byron Pitts took second; Best of Scale went to Houston's Mike Cook and his outstanding Ag-Cat, with Gail Phillips' P-40 in second; Bud Moix of Conway, Arkansas, took first in Non-Scale for his Antic Bipe and number two position went to Johnny Casburn and his big J.D. Jumbo; and

to page 134

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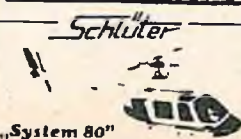
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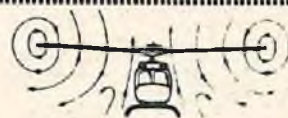
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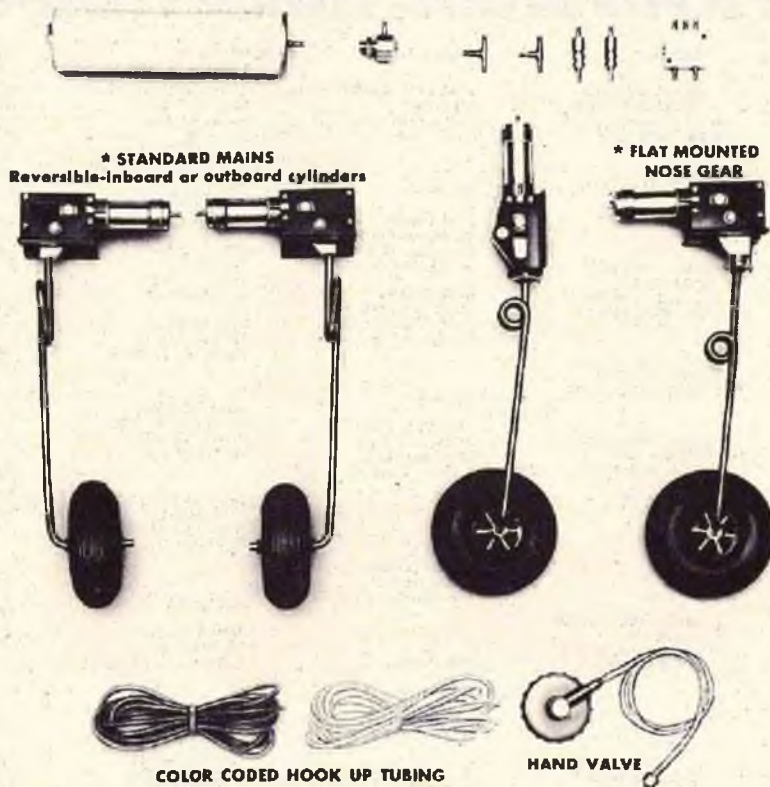


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JUMBO FLY-IN

from page 131/92

Claude Brown and his quarter-size Mitchell Wing went home to Sierra Madre with the Longest Distance Traveled trophy.

Since he was in the best position to compare this fly-in to the first three, I asked Chuck what he thought about trends and sophistication. He agreed that we've come a long way in the past four years and that scratch-built scale aircraft have become very popular.

"Also, the quality of both the airplanes and the flying has gotten so much better," Chuck said, "We're learning how to build better for this size and weight, and many more guys are jumping in and scaling down that long-time favorite bird to quarter-size with assurance of success."

He also pointed out that last year only a few planes had smoke systems, but this year smoke was a much more common sight. And then, of course, there was Mike Cook's beautiful Grumman Ag-Cat "spraying" flour from its hopper on low-level passes. Talk about total realism, that big pipe really had it!

And yet, in spite of increased flying ability and better-built birds, "we had more crashes than ever before," according to Cunningham. There were nine: five were traced to pilots doing dumb things; three were due to 72.080 and 72.960 cross-talking to each other, with 72.960 coming out the loser; and the last crash was unexplained. It did involve a 72.960 rig, but the 72.080 frequency pin was on the board and all transmitters in the impound were switched off.

For the many of us who like numbers and such, here's a run-down of the engines used: 16 Quadras, 1 Byron Quadra Drive (Owen Morris' Byron Mustang was an early fatality so I never did get a picture of his Quadra-Drive powered P-51), 9 Super Hustlers (4 were MK II's), 4 Kioritz, 3 McCullugh, 1 2.2 Kawasaki (Ed Couch's F4-B also crashed early so I have no pictures of his bird, either), 1 3.7 Roper, 2 West Bend, 7 Prop Drives (3 twin .60's, 3 twin .90's, and one single .60), and 18 other methanol burners. In the prop category, Zingers were the heavy favorites with 44, while Top Flite and Dynathrust were tied for last place with 9 each.

At first I was very surprised that Quadras didn't absolutely dominate the way they have up till now, but the answer is quite simple; four or five years ago the only commercially available power plant was the Quadra, so no matter whether your bird weighed 20 or 30 pounds, you

stuck a Quadra on it. Now, however, more engines are available and since, all other thing being equal, there's no substitute for cubic inches, guys are choosing engines that have the power to fly their birds safely. I was also very surprised that only one Kawasaki showed up since they seem to have really caught on.

Chuck Cunningham's 4th Annual Jumbo Fly-In (sponsored, lest I forget, by the Ft. Worth Thunderbirds) was, as expected, even bigger and better than ever, leaving the effervescent Chuck Cunningham with a very hard act to follow indeed. However, if tentative planning becomes a reality, the 5th Annual Jumbo Fly-In in 1982 will be combined with the IMAA's 2nd Annual International Fly-In right here in Arlington, which is virtually next door to Ft. Worth.

So it may very well be The Ultimate Fly-In ... and how do you follow that kind of act?

KADET JUNIOR

from page 84

We would like to make two comments in regards to the wing construction, which is otherwise straightforward and poses no problems for the beginner or expert builder. First, the 3/32" balsa webbing was so hard that it was necessary to use an X-Acto saw to cut it. This brought about a wrinkling of the brow because we had always used soft, easy to cut balsa for webbing. When the wing was finished we were very pleased at the extra strength brought about by the hard webbing. The extra weight was negligible; this is a feature we are going to remember in future construction. Second, we added a triangular balsa brace between the outermost wing rib and the sheet wingtip. Located mid-way between the front and rear spar, this brace adds rigidity and keeps the wing tip from vibrating up and down when sanding to final shape prior to sheeting.

We especially liked the manner in which the landing gear mount was sandwiched into the bottom of the fuselage then doubled to the sides with 1/8" aircraft ply. If nylon bolts are used to secure the metal landing gear to the fuselage, no way could the mount ever be ripped out. In fact, were steel bolts used, we still have our doubts that it could be ripped out.

Covering:

The wing was covered with white Super MonoKote and trimmed with red. The white crosses were white Trim MonoKote. The fuselage and empennage were painted. The balsa

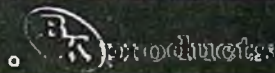
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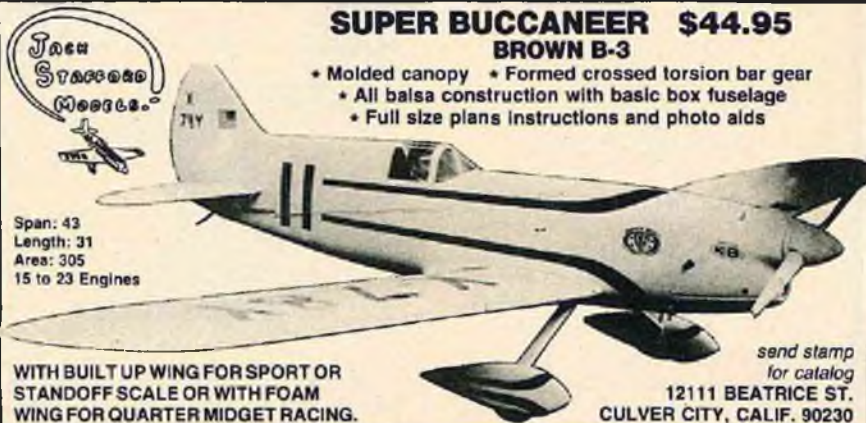
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was filled with two coats of Hobbypoxy Stuff which was sanded well between and after each coat. It was then primed with two coats of a new primer we located at the building supply center. The primer is put out by Rustoleum and is their white Automotive Primer. It dries ready for sanding in 30 minutes and covers as well, or better than, any primer we have ever used. The two coats, well-sanded, covered all indications of balsa grain that were not hidden by the Stuff. Unless you use fiberglass over the balsa, we don't think you will get better coverage than this method. Three coats of Pactra Formula U polyurethane polar white sealed it completely. Sand lightly with worn-out 600 wet or dry sandpaper. Rub with white compound and wax and you'll get a shine two feet deep.

Engine:

The plans recommend that the engine be from .15 to .25. We used an O.S. .25 hoping we would be able to fly at half throttle most of the time yet have the power to get out of trouble if it was necessary. The muffler with pressure fitting is stock O.S. The location of the firewall in the fuselage insures the engine has 3° down thrust, no right thrust. The standard 4 oz. Sullivan tank is located just behind the firewall. A .15 engine is more than sufficient either at full throttle on two channels or, if the model is built light, with three channels. Beginners should fly .19 to .25 powered planes at half throttle after take-off until they are familiar with the plane and have more flying time.

Radio:

The Kraft 3 channel radio with KPS 12 servos was located (almost lost) in the spacious radio compartment. The flight pack battery was positioned under the fuel tank and padded with white Sig foam rubber.

Pre-Flight:

Also included in the kit, for the novice, is a Pre-Flight Check List which includes piloting tips for the first flight. Read it thoroughly, verify each item on the check list (**that goes for you experts too**) and you will have greatly improved your chances for success.

Flying:

After going over the Pre-Flight Check List item by item, it was time. The engine was started and peaked to maximum then backed off a click or two to run a bit rich. Being chickens at heart, we taxied it around the field a bit (over 15 minutes) then with the 'old ticker' up in the throat we fed in full throttle. Fifteen feet down the runway she leaped into the air and climbed straight out to 100'. Only a bit of down trim was added to compensate for full throttle; this was removed when we cut the O.S. .25 to 1/3 throttle.

After a few trips around the field for show we then brought her in for a landing. When the power was cut, the Kadet Jr., floated in over the end of the field and flared to a perfect landing. The run-out brought her almost to our feet. Power was added at the last second to put it over by the field box. Other flights since have been just as pleasing. The plane balanced out exactly at the C.G. without the addition of weight. The 500 mil. battery was located under the tank as directed.

Conclusions:

We have commented many times that a novice flier should start with a plane that will fly by itself, as a free-flight does, and keep it around the field with the radio. The Kadet Junior comes as close to these recommendations as you can find in a kit. Learn to fly on something simple and forgiving, then progress upward as you gain the experience. □

AMA HELICOPTER NATS

from page 83/82

gentleman named Robert Gorham, who flew a helicopter called 'Cricket,' using a 'JR Spectra' radio. Robert has been flying just over five months but seems to have a natural aptitude which you don't find too often in a modeler. He certainly earned his win with careful preparation, attention to detail, a lot of practice and considerable skill.

He won, however, by a very close margin over another very accomplished gentleman, Jay Williams, who was flying an 'Horizon' helicopter.

One important conclusion that results from this 1981 Intermediate class competition was that a very simple non-collective helicopter, such as 'Cricket,' was able to compete with the much more sophisticated machines and beat them fairly and squarely in open competition.

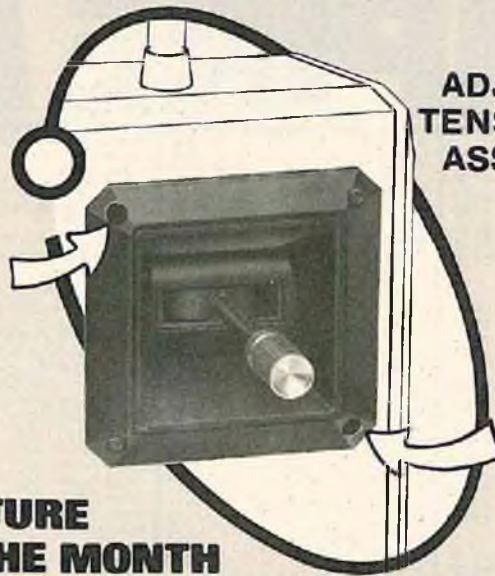
It naturally pleases me because I've always believed that there is much virtue in simplicity and that we all tend to believe that the more 'bells and gongs' there are on an item the better it will perform. Not necessarily so, and 'Cricket's' win proved the point in this case.

Expert Class

Now the Expert class is nearly always battled out to the last round and this year was no exception. The same people were involved in the first four or five places: Mike Mas of M.J. Mas Enterprises, last year's national champion; Hubert Bitner of Horizon

to page 140

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R/C HELICOPTER NATS

from page 137/82

Helicopters; Tony Frackowiak of World Engines; and Larry Jolly of Los Angeles. The flying by these gentlemen was, as usual, superbly carried out and Mike Mas "did it once again" by carrying off the 1981 Championship in Expert class. It's certainly always a pleasure to watch Mike fly — his hovering, especially, is utterly fantastic. Mike's helicopter, regardless of the wind conditions, appears to be "locked" in space in front of him. The activity on Mike's sticks must be pretty hectic in order to promptly correct all the disturbances that come along in turbulent conditions. Mike flew a hybrid machine which he had put together from several portions of stock machines and he had a well-deserved win with this combination. A 'J R Unlimited' series radio was used by Mike for his win.

Second place was richly deserved by Hubert Bitner. Of course Hubert was in his own territory and he must have been disappointed when he didn't win. His flying again was, as usual, superb and the margin of points between him and Mike Mas was small. Tony Frackowiak flew his Heli-Boy into 3rd place and also did a great job of flying. Larry Jolly was flying the new GMP 'Competitor,' which was only readied for competition a few days before. Larry used a 'JR Unlimited' series radio and he finished up in 4th place which was very commendable considering the small amount of time he had available to get used to his new machine.

Perhaps one of the really spectacular events of the competition itself happened when we all realized that Bill Curtis had entered in Expert class with a "Cricket!" Now Bill is very well-known to anyone who has been active in R/C helicopter activities for any length of time. He has been 'at it' for many years and has always been a very accomplished enthusiastic and gentlemanly flier. Bill Curtis and the old NRCHA contests were almost synonymous. Well, Bill ambled out (he's six feet three) for each round and kept improving his score each time. He eventually placed 5th in Expert with a last round score of over 8000 points. Some of us still swear that if there had been a few more rounds Mike Mas would have been nervously looking over his shoulder at Bill. Congratulations Bill and thanks for showing us all that even at national competitions we can still have a lot of fun just competing.

New helicopters which appeared as entries in the 1981 Nationals were the GMP 'Cricket,' the GMP 'Competitor,' the 'SX 81' and the 'Kalt.' There were also the usual smattering of 'Horizons' and 'Heli-Boys.'

Finally, after it was all over we had some free style flying by many of the contestants and spectators. We really saw some spectacular crashes. Hubert put one in so hard that there was a hushed silence for a few seconds before we all rushed to see the result. Never did find out what happened, Hubert. Then the scale ships came out to fly and Robert flew the Hirobo Lama around the sky. No loops, split 'S's' or even fast turns. Just slow but realistic take-offs, climb-outs, stall turns and steep descents to gentle landings. Nothing spectacular, but how impressive it always is when our models fly 'just like the real thing.'

All in all an excellent Nationals. We all enjoyed it very much. No crashes — not a single crash — in any of the competition flights. Harmony all around. Excellent judging. Good C.D. The weather was kind and all I would wish for next year is a whole lot more of you come along and, if you don't enter, at least mingle with us and help tell us some of your problems and we'll tell you some of ours. □

SOARING WORLD CHAMPS

from page 74

awards 1000 points for completing 12 laps of the course (6 round trips), and lesser points for partial completion. Duration awards 1 point per second, up to 6 minutes, and deducts 1 point per second over 6 minutes. Landing points are awarded in 1 meter increments, up to 15 meters from the center of the spot. Aside from each contestant furnishing his own launching gear, the big difference between U.S. contests and F3B contests is the concept of working time. In Duration, for instance, the flier has 9 minutes to launch and complete the task. If not satisfied with the way things are going, he may land and begin his time again. In Speed, however, once the flier enters the course he must complete that attempt, and may not re-enter the course.

The first day of the contest went very slowly due to the inexperience of the official crew. Everyone tried, but without a bunch of previous experience, there was a lot of stumbling. Only two flights were run, Distance and Speed. The Duration event was run first the next day. After the first round the leaders were Bannister, England; Schaeffer, West

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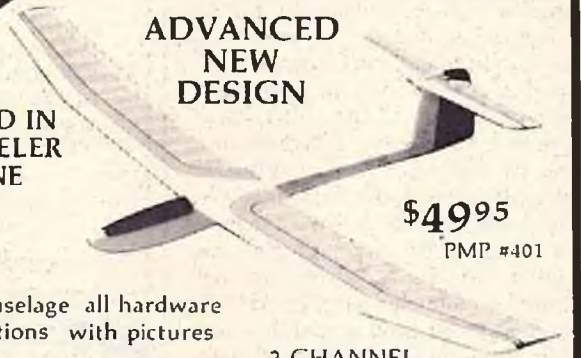
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Germany; Edberg, USA; and Holley, USA.

Speed took its toll in the second round. Edberg, USA, missed the turn and had to go back; time - 17.7 sec. Schaeffer, West Germany, had a bad run of 14.8 sec. At the end of the second round it was; Bannister, England; Vauth, West Germany; Holley, USA; Wasner Jr, Austria; Blake, USA; and Schaeffer, West Germany.

In the third round, Bannister made only 4.7 min. in Duration, with an 8 meter landing. Blake, USA, turned 9.4 sec. in Speed, temporarily raising him to 3rd from 5th. However, he achieved only 6 laps in Distance, which plunged him to 14th. So, after 3 rounds it was; Vauth, West Germany; Holley, USA; Bannister, England; and Schaeffer, West Germany.

In the fourth round, all the leaders

maxed in Distance. In Speed, Vauth made 9.6 sec.; Holley, 11.4; Bannister, 10.5; and Schaeffer, 10.7. So, the order remained, starting the last flight, Duration. All eyes were on Vauth of West Germany as he launched. In order to win he needed only about a 4½ minute flight and a reasonable landing. Vauth launched well and pressed out to the North. He found to page 144

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| Radio |2-4 channel |
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| Gross Weight |2 lbs. (950 g) |
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| Engine |09-.11 Recommended |

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SOARING WORLD CHAMPS

from page 142/74

light lift requiring real effort and skill to stay up. After 4 minutes, I understand the West German Team Manager advised Vauth to return and set up a landing. Whether Vauth decided to go for the 6 minutes, or whether he felt he needed more height, I don't know. At any rate, when he started back, he hit sink and did not make it to the qualifying area (100 meter radius). With his working time nearly finished, a helper ran out, retrieved the ship, and ran back to re-launch. Unfortunately, there was only time for a 2:11 flight and 2 meter landing, and Vauth fell to 5th place. Holley, USA, flew 6:01 with a 1 meter landing. Bannister, England, went 5:53 and 3 meters. Schaeffer, West Germany, 6:00 and 1 meter to finish 1, 2, and 3.

The thing that pleased us old guys was that the winner is a 47 year old veteran of the sailplane wars. He was flying a MonoKote covered sailplane of built-up wing construction, which clods like me can build. Dwight Holley was so consistent it was frightening. He maxed all Duration, the worst flight being 7 sec. off. He maxed all Distance, save one, which was 1/4 lap short. His Speed averaged 10.4 sec., with two 9.6 sec. runs. Dwight Holley clearly deserved to win this one.

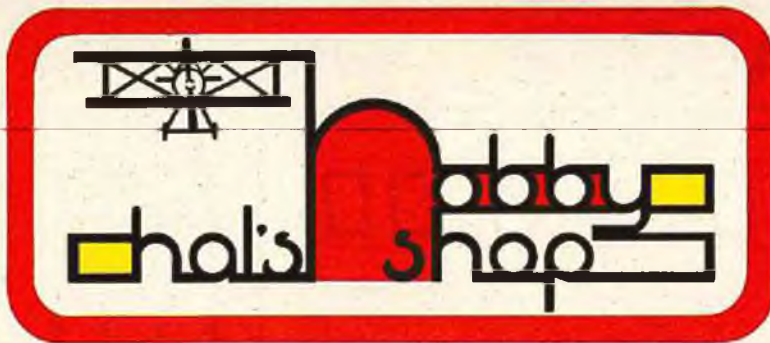
Due to the number of pictures, this text will be a bit short. I'll try to cover other facets in future Soaring columns.

In Speed, the fastest time was turned, using the Canadian Cannon launch, by Dave Wright, Canada. His time of 8.5 sec. was lowest. In the top three spots Holley averaged 10.4 sec. over 3 rounds. Bannister averaged 9.97 sec., and Schaeffer, 11.1 sec. So, you can see Holley didn't give away much in speed.

By and large, the aircraft featured superb workmanship. Joints at all control surfaces were really tight and well-fitting. Many had fiberglass wing surface, with foam cores. The Swiss Spartakus ships had fiberglass / balsa / fiberglass laminate top and bottom and were built in a mold.

Dave Peltz did his usual workmanlike job of scoring, using the Computorp 675 computer. Results were computed and printed 10 minutes after the last flight. Frequency monitoring was done on an HP 8566 Spectrum Analyzer with plotter and desk top computer. When

to page 146



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SOARING WORLD CHAMPS

from page 144/74

it was all over Contest Director Ray Marvin collapsed in a heap.

Anyway — we'll have more to say, downstream aways; check *Soaring*.

Team Standings

| | | |
|--------------|---------|----|
| West Germany | 33572.5 | 1 |
| USA | 32613.3 | 2 |
| South Africa | 32111.1 | 3 |
| Italy | 30890.7 | 4 |
| Australia | 30818.6 | 5 |
| Switzerland | 30682.4 | 6 |
| England | 30512 | 7 |
| Denmark | 29624.2 | 8 |
| France | 29141.5 | 9 |
| Netherlands | 27783.8 | 10 |
| Spain | 27478.4 | 11 |
| Austria | 26708.4 | 12 |
| Belgium | 26554.4 | 13 |
| Brazil | 26514.7 | 14 |
| Japan | 25303.7 | 15 |
| Argentina | 24856.5 | 16 |
| Israel | 23997.7 | 17 |
| Luxembourg | 22739.7 | 18 |
| Sweden | 21806.8 | 19 |
| Canada | 17281.8 | 20 |
| Peru | 8885.6 | 21 |
| Mexico | 6680.7 | 22 |



IMPBA INTERNATS

from page 69/66

system which, if perfected, will rectify these problems. We saw several one way passes in the low 80 mph range, but with a back-up pass the best of the hydros averaged speeds in the mid-seventies.

In the B Mono class, John Shannon averaged 41.32 mph with a homebuilt engine powered Streaker using a G-25 prop and 78% fuel. First place in B Hydro was Karen Hughey. She drove a boat her dad, Ed, built (a Hughey Rigger) with a K & B 3.5, a Hughey 40-52 prop and 60% fuel, to an average of 60.89 mph. The D Mono Winner, Ed German of New York, had a back to back pass average of 44.02 mph with a Muck Streaker, K & B 7.5, an X455 prop and 25% fuel. Jay Maguire of Florida used a Hughey Rigger with a K & B 7.5 and a cut down 1465 on 60% fuel to get the top average speed of 67.16 mph in D Hydro. E Mono 1st place was taken by George Harris at 50.61 mph with a Witchcraft hull, an OPS 65, an X455 and 40% fuel. E Hydro average mph was 77.18 taken by John Shannon with a Crapshooter, an O.S. 65, an Octura 1667, and 25% fuel. John Copeland had a 48.23 mph average in F Mono with his Westcoast Marine hull, an OPS 90, an Octura 2.0 four bladed prop using 20% fuel. In the

F Hydro class, IMPBA President, Fred McBroom, used his Twin Gator with two modified OPS 65 engines turning 1667's to go an average 77.50 mph on 50% fuel.

Wednesday morning, back at the heat racing pond, contestants appeared to run their boats through the 1/3 mile Oval Trophy Trials. This event drew a few more entries than the straight-away competition. Each contestant was given two minutes to get his boat started, in the water, and needled if needed. He then had two laps timed. After those two laps, one could pit if desired (changing only needle and plug), then try to better the previous two lap time.

The weather seemed to change continuously and some locals claimed that the humidity changed every ten minutes. Many people had trouble with boats that ran well the previous day. We heard every reason for not running well: change in the weather, too much prop, wrong pipe, and even diminished mental capacity on the part of pit men!

However, the ones who had their act together included David Preusse who drove a Lightning Bolt 31 around the 2 laps in 40.46 sec. in the B Mono class. He used a K & B 3.5, an Octura 1435 prop and 60% fuel in what was perhaps the smallest boat to appear on the lake all week. In the B Hydro class, Ed Hughey had a Hughey 21 Rigger set up just like Karen used to win straight-away. He drove it around in 30.93 seconds for 1st place in that class. George Grossman, using his O.S. 40 Max powered Westcoast Formula X hull, drove the ovals in 35.8 sec. for a 1st in D Mono; and in D Hydro, Bob Finn of Dallas, Texas, drove an Exterminator around the 2 lap course in 28.61 seconds. He had an O.S. Max .46 in his boat, with a 1460 prop and 50% fuel. In the E Mono class, a Witchcraft driven by Scott McGuffin of Dallas, Texas, turned 31.49 seconds with an OPS 65, an X455 prop and 40% fuel. E Hydro was taken by Steve O'Donnell of Los Angeles, who drove a new design Boss 60 hydro. His first lap time of a little over 10 seconds was awesome. On the second lap of the oval, his engine rotor valve went away and he only turned a 25.80 second 1/3 mile oval. Even so, this was about a full second faster than the second place boat. His highly modified Pico 65 motor was turning a 1470 prop in the neighborhood of 24,000 rpm using 60% fuel.

F Mono was taken by an Englishman, David Spicer. He drove the TJR Mastodont he drove in the World Enduros and when asked what percent nitro he ran, he said he had FAI fuel at the beginning of the week,

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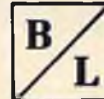
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but just kept adding nitro here and there to get the boat to go faster "so let's call it 10% by now." It must have made a difference as he won the F Mono Oval Trials with it running a CMB 90 engine and a modified RM 55X prop. Charles Chauvin had a scratch-built twin hydro with OPS 65's, 1470 props and 50% fuel to take 1st place in the F Hydro class with a time of 25.5 seconds.

On Wednesday night, a very pleasant diversion from running boats, was a party given for the Internats contestants and their families by the Indy area manufacturers. The get-together was the social highlight of the week. Activities included hiking, swimming, and a sumptuous buffet. The event gave all a great chance to get acquainted with many of the international personalities and to enjoy some bench racing.

The heat racing began on Thursday morning and continued through Saturday. Four rounds of racing was accomplished during these three days. Reliability did not seem to be very good. Six and seven boat heats were run, but seldom did more than 2 or 3 boats finish. There were also a lot of "out of control" boats that proved to be due to mechanical, not radio, interference problems. These problems probably were due to the fact that the Internats is held toward the end of the racing season and equipment tends to fail more often due to wear and tear.

Bill Schafer of Buford, Georgia, drove his Stewart SSU hull that was powered with an OPS 3.5 to wrap up 1st place in B Mono. He used a JGE-20 prop and 35% nitro fuel to take top honors over Robert Berson and his Alpha enduro boat and John Shannon's 3rd place Little Streaker. Ed Hughey and his Hughey Rigger again were in top form in the B Hydro class. He took 1st place over Marten Davis of Indianapolis who drove a K & B 3.5 powered Crapshooter. Third place was Mert Mischnick of Chicago.

D Mono was won by George Grossman and a Westcoast X40 hull. Second place winner was Bob Schoenan who used a K & B 7.5 motor, a Dumas 101 prop, 40% fuel and a Wardcraft hull. Ed German drove his Streaker to 3rd place.

The D Hydro class winners were determined by a run-off race. After the four rounds of racing, three people

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were tied for 1st place with perfect scores: Ed Hughey, Jay Maguire, and Buck Scofield. During the run-off heat, all boats made the mill. Maguire and Scofield jumped the start and, therefore, were a lap behind Ed Hughey. Hughey maintained his lead for four laps when Scofield blew his pipe pressure fitting out and died in a turn. Hughey was ahead of Maguire but his boat found a hole in the water and dove in on a turn. Maguire drove on for a finish to win the class.

Since Scofield and Hughey were still tied for 2nd with DNF's, a second run-off race had to be scheduled. In this race, both contestants made it to the mill but Scofield's boat lost its pressure fitting again and stopped before the start. Ed started the race and was declared 2nd place winner. Ed drove his K & B 7.5 powered Hughey Rigger and used a Hughey 4052 prop and 60% fuel.

A Witchcraft was the winning hull in E Mono heat racing. Scott McGuffin drove to a 1st place finish over Bev Powers' Dumas hull that was Rossi 65 powered. John Kemmet was 3rd driving an OPS 65 powered Streaker that used an Octura X455 prop and 40% fuel.

John Ackerman of Indianapolis won E Hydro driving a 38" Crapshooter powered with an OPS 65. He used an Octura 1467 prop and 60% fuel. Second was Bud Beard who drove a prototype Spyder hydro. It was powered by a Rossi 65 that turned a 1470 prop on 60% fuel. Ben Beard (Bud's father) was driving a similar set-up and finished 3rd in the class.

A Rossi 80 powered Sightler hull, driven by Vernon Barnes, was 1st in F Mono heat racing. He used 50% fuel and an X455 prop. Second and third places were David Spicer from England and Malcomb Bray from Wales. They both drove TJR Mastodonts using modified RM 55X props and CMB 90 engines running on 10% fuel.

F Hydro was won by Southern Gentleman Roger Moran who had a big scratch-built Crapshooter named Possum II. Possum carried twin OPS 60's and turned 1470 props with 40% fuel. The only thing bigger than Roger's boat was his own portly frame. We really enjoyed this gentle giant's sense of humor and fun loving ways. A run-off between Bob Finley and Sid Broughton was needed to decide 2nd and 3rd place. Finley got the start on Broughton and maintained his advantage to win 2nd place overall. He drove a Rossi 80 powered Crapshooter that used a 1470 prop and 40% fuel. Sid drove the biggest modified Crapshooter I ever saw that had twin CMB 90's for power. As one of the spectators said, "I don't care how

the damn thing runs, I want to see the guy who can launch it." The boat used Octura 2167 props and 1/4" cable drive to propell it. If the R/C airplane guys ever have a carrier event, you might contact Sid because that boat is big enough to land on the deck.

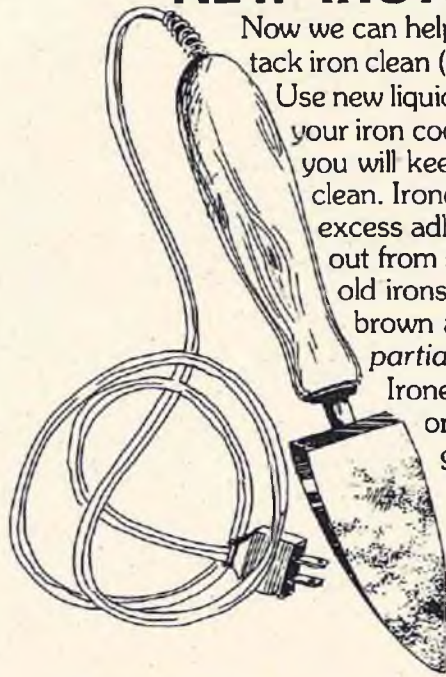
The week's events climaxed on Saturday night at the award's banquet. A super buffet was provided, during which almost everyone present received a door prize. The awards given for the top three finishers in each class were Olympic style metals. The medals were cast in the shape and design of the '81 Internationals patch. The awards were a very pleasant change from the usual trophy type awards given at most races. U.S. number 1 awards were awarded to seven contestants who accrued the most points in the Straight-Away, Oval Time Trials, and Heat Racing competitions for their class.

David Preusse was 2nd in Straight-Away, 1st in Oval Trophy Trials, and 5th in Heat Racing, and thereby won the B Mono Championship. Ed Hughey was both Oval Time Trials and Heat Racing winner and was 2nd in the Straight-Away Time Trials. He easily won the B Hydro Championship. The D Mono Champion was George Grossman who was 1st in Oval events and 4th in Straight-Away. Jay Maguire won Heat Racing and Straight-Away competitions and was 5th in Oval trophy competition. This was enough to win him the D Hydro Championship. The U.S. #1 in E Mono was Scott McGuffin who won 1st in the Oval events and was 2nd in Straight-Away. Bud Beaird is E Hydro Champion by having taken 2nd in both Oval racing events. Tom Pretzfeld was F Hydro Champion. He drove a Gator Twin powered by a pair of OPS 65's, 2.8 props, and 45% fuel. He was 2nd in Straight-Away and the Oval Time Trials which was enough to capture the title.

A High Point Championship trophy was presented to the contestant whose performance with one boat was the best overall in all its events. Jay Maguire was the recipient of this award presented by last year's winner, Ed Hughey. Another trophy, the President's Cup, was presented to Ed Hughey for having the best combined two boat total in heat racing points, handicapped by the number of entrants. The final recognition of the evening was induction of Mert Mischnick into the IMPBA Hall of Fame.

We congratulate all the winners and thank all those whose attendance and hard work made the IMPBA Internats a special one for all concerned.

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P51D MUSTANG

from page 65

..... covering or painting of the plane is necessary, it is prefinished in an aircraft gray. We found that painting the canopy as instructed, was much easier than applying the included decals. We used Pactra Formula U aircraft aluminum which did not quite match the kit gray, but was fuelproof and it does complement the plane.

The decal sheet is an education in scale itself. It almost took longer to adhere all the little printed messages, Stars and Bars, stripes, numbers, and insignia, than it did to build the plane itself. There is even a page in the instruction booklet with drawings to show where each of the decal messages goes. The larger decals were wet with water and detergent before application for easier positioning. They were burnished down with a facial tissue, when dry. All the other little decals were adhered dry and they do go on neatly if you trim the edges close to the printed messages. You will be pleased to see how the decals dress up your plane; take the time to install the cosmetics carefully.

Engine:

A Fuji .099S II engine and its muffler were installed. This engine fits the Enya mounting plates exactly which made the installation a drop-in. The fuel tank (for which the interior of the fuselage was molded) is a part of the kit.

Radio:

The compartment for the radio was very roomy. After packing in a large 500 mil battery pack, we were surprised by the room left for the receiver. The aileron servo and pushrods are installed compactly in the wing and take up very little space in the fuselage radio compartment.

Flying:

We agree with a capitalized comment in the instructions which said, "DO NOT ATTEMPT TO FLY THIS MODEL ON YOUR OWN IF IT IS YOUR FIRST R/C AIRPLANE!" That is a good comment for any first R/C plane. For one who has had some stick time, the Mustang is a neat little airplane, it will do most of the simpler stunts such as loops, rolls and split S's. When throttled back to land, it has a tendency to float so be on your toes when taking off and be ready to judiciously apply a bit of rudder to keep her tracking down the runway. She is a good flying little plane and

one you will enjoy taking out to the field. Besides, you do not have to be a packaging engineer to get it in one of these new sub-compact cars.

Conclusion:

The plane could be readily built by a beginner but he should have flying assistance. We feel this is why there are absolutely no flying instructions in the booklet. They are not kidding, everything is there, but radio and engine, right down to the most minute piece of hardware. Hang a 7/4 prop in the nose, add the yellow spinner included in the kit and you are ready to fly. □

R/C CAR CHAMPS

from page 62/60

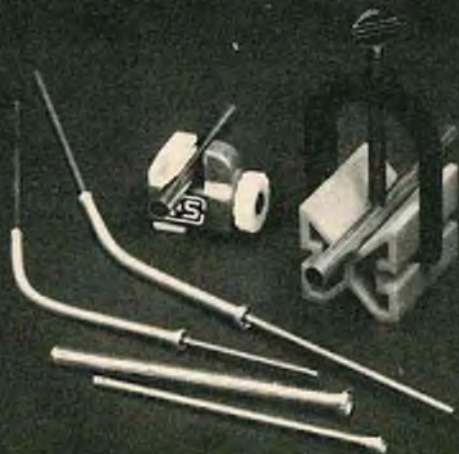
fast he was going, because he was in the same qualifying heat as Arturo Carbonell, and Art was certainly going fast.

The second day, Kondoh was the first one to turn 37 laps, with a time of 37 laps in 10 minutes 6.04 seconds or 37 - 6.04. This held as Top Qualifier time of the event. But only 2 seconds behind was 13 year old Ralph Burch Jr., from Denton, Texas, USA. I'm sure Ralphie's performance surprised everyone there, except of course for his father, Ralph. Most of the racers here have been racing 5 to 10 years. Ralphie hasn't even participated in his 10th gas car race yet! Once he gets some experience, he could be tough to beat. But it's hard to imagine him being any better. One second behind Ralphie, came Arturo Carbonell, USA, with 37-6.07. Ishihara from Japan had an identical 37-6.07 with a 2 second slower back up time. How's that for some close qualifying? Next was Roberto Bortolamasi from Italy with 37-6.09 and then Gary Culver from England with 37-6.12. These 6 drivers went straight into the Main event.

Saturday's qualifying was for the final 4 places among the next top 40 drivers determined from the first 2 days of qualifying. The track was getting better as more and more drivers were able to turn 37 laps. Steve White, from England, made the Main with 37-6.04 as did Ernes Tadiello, from Italy, with 37-6.07, David Lecat, from France, 37-6.11 and finally Peter Bervoets from Holland 37-6.11. Phil Booth turned a 37-6.16 and Bill Jianas turned 37-6.13, Rick Davis was on a very fast 37 lap qualifying heat, when with 5 laps to go rain halted qualifying. The last 2 rounds of qualifying were rained out on Saturday.

to page 158

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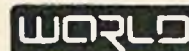


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R/C CAR CHAMPS

from page 155/60

I want to give you a list of drivers who did not make the Main event. Was your favorite driver among these racers? Phil Booth 1979 World's Champion, Butch Kroells 1977 World's Champion. Bill Jianas finished in 2nd place 1977 and 1979 W.C., Curtis Husting 2nd place qualifier 1979 W.C., Chuck Phelps 3rd place 1979 W.C., Ronnie Ton, Phil Greeno, Debbie Preston, Dave Martin, Franco Sabattini, Gary Kyes, Hank Smith, Dana Smeltzer, Rich Lee, Kishi, Hansson, Pagdin, and Re-Pete Fusco. As you can see, a super Main event could have been made up from this list. Each of these drivers had the

potential to make the Main event. A very few quick seconds made the difference.

Sunday was Main event day, and wouldn't you know — it was raining! Apparently there is only one place in the USA to hold an event like this and that's Southern California. It just simply does not rain here in July or August. It stopped raining about 9 a.m. By 11 a.m. the track was almost dry and the Main event cars were allowed one hours practice time. The R.H. side of the track wasn't too bad, but the L.H. side was still damp and all the cars were spinning out there, even the IS cars. The race was finally scheduled to start at 12:30. It was not an ideal condition to stage a W.C. event, but the start couldn't be delayed much longer, because the clouds overhead promised more rain.

The cars were lined up, the green flag raised, and the race was underway. At the end of the first lap it was Arturo in front, followed by White, Burch, Tadiello, Bartolamasi, Lecat, Kondoh, Ishihara, Bervoets and Culver. The track was dry, but still slippery and it was quite apparent Arturo had done the wise thing by adjusting in a little more slip in the differential making his car more suitable to the track conditions. At 10 laps it was still Art, White and Burch. Ralphie had mentioned to his father that his radio was acting up in the practice session, but his father thought it was only because the track was wet that the car was doing funny things. It was now clear that Ralphie had his hands full trying to drive with the radio doing strange things. Just

to page 160

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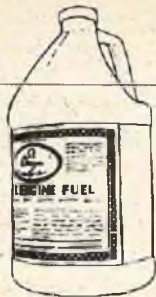


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R/C CAR CHAMPS

from page 158/60

then Art tangled with another car, sending him into the boards, and bending the wing. He had to make a pit stop to fix the wing, and White went ahead to take the lead.

But it was only a few laps before Art regained the lead. Art was simply in a class by himself. He could simply drive the track, making good time, while all the other cars, which had been set-up

for a high traction track, were still spinning out on the L.H. side of the track. By 40 laps, Art had now built up a 2 lap lead. Miraculously, Ralphie was still in second, with a car that was going in strange directions all over the track.

Then at 44 laps it rained! Art had a 2 lap lead over the rest of the field. But for the race to be official, 101 laps had to be completed. If the rain stopped, the race would be restarted from the 45th lap. But after 1½ hours it was still raining! What would happen if it continued to rain all day? As explained previously at the driver's

meeting, in the event the Main was rained out, the World's Champion would be the driver who had the best three qualifying rounds. Everyone had more than enough time to figure out that Ralphie Burch Jr., the 13 year old driver from Texas, could be our next World's Champion. Ralphie was the only driver to turn two 37 lap qualifying heats and a 36-6.01. Missing a third 37 lap heat by 1 second! He was certainly the most consistently fast driver here.

But after 1½ hours the rain stopped, and an hour later the Main was
to page 168

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R/C CAR CHAMPS

from page 160/60

restarted. The track was again slippery. Art was given a 2 second head start off the line, then the rest of the field took off. Art was long gone and before too long he was lapping cars. At 50 laps, Art held a 2 lap lead over White, with Lecat now in 3rd and Tadiello in 4th. It was not allowed to work on the cars during the rain halt, and Ralphie's radio now was gone, and he was out of the leaders.

At 90 laps Art held on to a 2 lap lead

over White, while Lecat in 3rd, started having problems. At 100 laps Kondoh had taken over 3rd with Tadiello in 4th. The track was now starting to dry out and Kondoh and Tadiello were putting strong pressure on White for 2nd place. By 120 laps, Kondoh was in 2nd with Tadiello 3rd. At 140 laps Kondoh stopped to change tires, giving Art a little more breathing room. But now Kondoh was flying, turning in the fastest laps of the Main. He passed Tadiello to retake 2nd. He drove around Arturo, but he was still 2 laps down.

By 160 laps, Tadiello was now flying with a new set of tires and he passed

Kondoh for 2nd. Art had started on large tires and it was now apparent he could go to the distance without a tire change. Although Tadiello and Kondoh were faster than Art at the end of the race, Art had a 2 lap lead and he could afford to take it slower with fewer chances. Art went on to take the win at 200 laps with Tadiello 2nd with 198, Kondoh 3rd with 196 and Ishihara 4th with 194.

I am very happy for Art. He is a very worthy and deserving Champion. He is a class individual. Certainly one of the most popular drivers we have. It couldn't have happened to a nicer person. Congratulations, Art!

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NAMBA NATS

from page 59/48

heat was for ten minutes with the person finishing with the most laps in 3 heats being the winner. Typically this event is one of the closest competitive events at the Nats. This year was no exception. The first two rounds were run on Monday. After the first day, Mike Drewery was leading Norm Teague by 3/4 laps and Diana Semler by 1 1/4 laps in the A Class. The B Class was almost as tight with John Brodbeck leading Robert Holland by

3/4 laps and Mike Drewery by 3 laps. In Class C, J.T. Finley led Don Reutlinger by 1 1/4 laps while Bev Power was 2 laps down. In X Class Al Prather had a considerable lead over the rest of the drivers. I don't know who had the worst night's sleep before the last round; those with a slight lead or the hopeful come-from-behind drivers.

On Tuesday, in Class A, both Diana Semler and Norm Teague flipped while driving hard to overtake Mike Drewery's lead. As a result Art Hammond slipped into second place with a fine, consistent performance. Judy Prigley of Fremont, California

also drove well and placed third in the event driving a Muck Little Streaker with a K & B 3.5 engine. Mike Drewery won the event driving a Prather 21 hull powered also by a K & B 3.5 using a I-22 prop. This was Mike's first, 1st place finish in any event during his 2 year model boating career. He wasn't too happy!

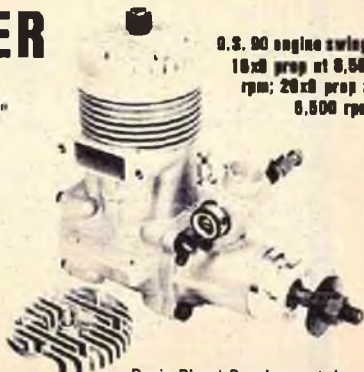
In Class B, John Brodbeck uncharacteristically spun out after 8 minutes. He had been driving very smoothly but the boat some how found a hole in the water and it was all over for John. Robert Holland also got into trouble and died shortly thereafter. As

to page 172

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NAMBA NATS

from page 170/48

a result, Mike Drewery and Terry Prather were tied for first place, each with a total of 71½ laps after the three rounds.

In the 10 minute run-off race, Mike got out first and Terry chased him around the course about 20 yards behind. After several laps the pressure was too much for Mike and he cut a buoy. Terry smartly backed off and drove to a first place. Mike Drewery was given second and Robert Holland from San Diego, California was third. In Class C, Don Reutlinger went out first and drove his best lap total of 25. As a result J.T. Finley had to run at least 24 laps to maintain first place. In spite of traffic from the five other boats in his heat, "Ole Spot" ran hard and won the event. Bev Power's boat died in the last round because her mechanic (who shall remain nameless) leaned the motor down to really go fast. In spite of this miscalculation, she maintained third place. In X class, Al Prather just cranked out the laps and won the event. He was running the prototype 46" Offshore Prather hull using an OPS 90 spinning an Octura X460 prop using 60% nitro fuel. Second place went to John Frakes of Yukon, Oklahoma who was driving a 3-D Ruff Stuff powered by a Rossi 80, an X467 prop and 50% fuel. Third place was awarded to Robert Steele from Oklahoma (I think) who drove another Ruff Stuff powered by a Rossi 90 and used 25% fuel to twist an X467 prop.

After the deep vees ran, it was the Class A outboard hydros turn to race. At past Nationals I have, quite frankly, not been impressed with this class. This year they blew my mind! The El Diablo made by Marten Davis Precision Boat Mfg., was undoubtedly the fastest thing in the class. These boats were fast enough to be competitive in A Hydro Class. This was very surprising to me because the engines didn't have tuned pipes so they had less power to work with. These boats were very fast down the straights and the motors never stopped accelerating to incredibly high rpm before they shut them down for the corners. If these boats have any weakness it is cornering speed and stability because of their relative lightweight. Norm Teague won the class and Joe Monohan finished second. Both of these drivers are from Los Angeles, California and drove the El Diablo. Both used Octura 1740 props and 50% nitro fuel. Richard McWayne of Vacaville, California

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placed third driving a Stewart SST tunnel hull which used a JG E20T propeller and 60% fuel.

On Wednesday A and C Hydro, and Class A Outboard Mono were run. A Hydro was dominated by Sid Ford of Los Angeles. His original "Boss 20" hydro was designed by his racing partner Charlie Perdue also of Los Angeles. This boat had so many unique design features that I hope to get together a complete report at a later date. Most notable was their "trick" sponson bottom design which made this boat very fast and stable. His fast time of 1 minute and 42 seconds for the six lap course at the 4000 foot altitude of Amarillo is good, but he just ran outside everyone and blew them away. I don't know how quick the boat is if he would put it close to the buoys! His boat used a K & B 3.5 motor, an Octura X445 prop and 60% fuel. Art Hammon of Dublin, California placed second driving a Wing Ding 20 powered by a rear rotor K & B 3.5 using a JG I-25X prop and 55% fuel. Norm Teague drove his El Diablo to third place.

C Hydro was won by Roger Hooks of Mountain View, California. His boat was a modified Hustler powered by an O.S. 65, an Octura X445 prop and 40% fuel. Roger was sort of a dark horse winner after all the hot shots proceeded to eliminate themselves in one way or another. Jack Oxley of Los Angeles had trouble leaving the beach in his first round. Howard Power had a radio antenna break inside the boat while leading his second heat and could not finish it. Jim Whitlatch turned upside-down while in first place because another boat lost its turn fin and was out of control. Survival of the fittest was the motto of the day because of the 7 and 8 boat heats on the small course. Theresa McWayne placed second driving a Crapshooter Mantis. It was powered by an OPS 65, a 1462 prop and used 50% fuel. Third was Gary Jeffrey of Canada. His Scorpion was powered by an OPS 65 and spun a 1462 prop using 60% fuel.

Class A Outboard Mono was sort of anti-climatic after the C Hydro races. There was, however, some very good racing even though the boats were so much slower and quieter. The Westcoast Marine Stingray hull was the most popular and it took the first two places. The class was won by Jack Garcia of Downey, California. Both winning boats used JG E20 props and 50% fuel. Third place was won by Canadian Dave Collis. He used a Prather 21 hull, a D-22 prop (whatever that is?) and 60% fuel. All the boats were about the same speed so good driving was the name of the game in this class.

to page 176

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NAMBA NATS

from page 173/48

Thursday brought out the Class A & B Monos. A Mono was won by Mike Drewery using the same boat he won the Deep Vee Classic with. Richard Hazlewood from Needles, California finished second and Diana Semler from Los Angeles, California, finished third. All three boats were the 21" Prather deep vee hulls. As the afternoon developed, lightning and thunderstorms moved in on the lake. The judging and driving stands were constructed of metal scaffolding so the

race was stopped as the lightning got closer. Soon after it rained "cats and dogs" and the last round of B Mono had to be run on the following day.

Friday dawn was beautifully clear and the last round of B Mono was run. Jim Whitlatch from Orinda, California, won the class running a Ward Craft powered by a K & B 7.5, 55% fuel and using an I25X prop. Terry Prather of Los Angeles placed second and John Brodbeck finished third. They both drove the same 40" Prather deep vee hulls that they ran in the Deep Vee Classic.

Class C Mono was won by Robert

Holland from San Diego, California, who is a junior member. Robert entered all the Mono and Deep Vee Classes with excellent boats that displayed beautiful workmanship. It seemed that there was always something going wrong to keep him out of the running. But he put it altogether for a well-deserved win. He drove a 40" Prather deep vee hull powered by a Rossi 65, used an Octura X455 prop and 50% nitro fuel. J.T. Finley placed second with Ole Spot and Roger Hooks from Mountain View, California, placed third

to page 178

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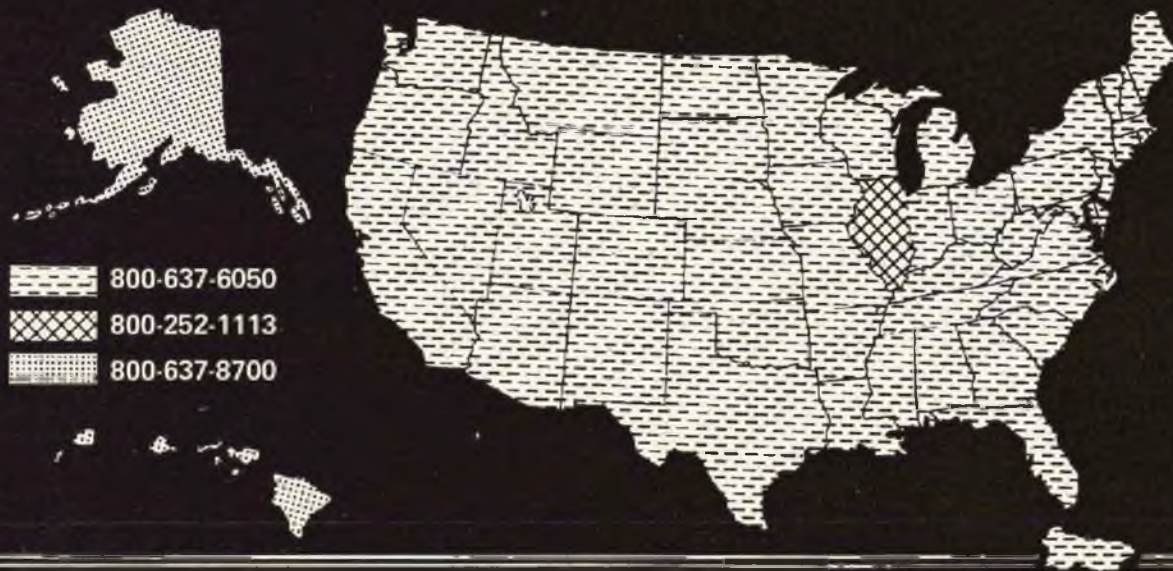
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NAMBA NATS

from page 176/48

running a Sightler 40 hull, an O.S. Max 65 motor using 40% fuel and an X455 prop.

A OPC Tunnel competition resulted in lots of close, well-driven races. These boats use stock motors and scale-like tunnel hulls which means that everyone is about the same speed. You must drive well to win. Jack Garcia from Downey, California, won

the class driving a Hamiltunnel hull that was pushed by a JG C-20 prop and 50% fuel. His boss, John Brodbeck finished second driving a Prather tunnel hull which used an E-20T propeller and 50% fuel. Terry Prather took third place with a similar hull, a C-20 prop and 60% fuel.

Saturday was the grand finale day of racing with X Mono, X Hydro and B Hydro on the program. The X Classes of NAMBA are for engines with displacement larger than 0.68 cubic inches. Most of the boats used single 80 or 90 engines but brave soul Mike Allen, of the host Muddy Rudder Club ran a good looking 3-D Ruff Stuff

that had two OPS 65 motors spinning Octura 1955 props on 40% fuel. When the boat ran it was awesome. Unfortunately, Mike had problems keeping this new boat running and did not place in the top three. The class was won by Don Farmer who drove a Witchcraft hull using a Rossi 90 motor, X455 prop and 25% fuel. Second was taken by John Frakes who ran a 3-D Ruff Stuff powered by a Rossi 80, an X467 prop and 50% fuel. Third was Beverly Power who used a Rossi 80 in her "Day Tripper" Dumas hull. The fastest time in the class was by Al Prather who was running a test prototype 46" Offshore Prather hull

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powered by an OPS 90 that looked really good.

The X Hydro class had half the entries running either twin 45's or twin 65's. The remainder ran single motors of .69 to .90 displacement. The single engine boats seemed to be faster and more reliable but were at a disadvantage because of the large, deep wakes produced by the heavy twin hydros. If you were driving one of the small single engine boats you had to really watch the water and pass the larger boats with care or you would fall into the holes they made in the water. There were many exciting heats because there were always at

least six boats on the water in each heat. That usually meant that at least nine rooster tails were throwing vast amounts of water into the Texas atmosphere. When the spray settled, Howard Power won the class driving a 60 size Wing Ding hydro powered by a Rossi 69 turning a 1467 prop using 60% fuel. Jim Whitlatch placed second using a similar boat and engine but used a 1465 propeller. Jim had the contest won until the last heat when he had to run against third place winner Gary Thornton of Clovis, New Mexico. Gary's boat was a brand new Thundergator boat with twin OPS 65's. He used 1470 props and 15% fuel.

The boat ran well and Gary hit the start of the last heat perfectly. Jim's boat had speed on the twin but Jim had to find a way through all that water being thrown from the rear of that Gator, much to Jim's dismay. Gary drove the race of his life and Jim just couldn't find a way to pass.

The B Hydro class is probably the most competitive class at the Nationals. This class usually draws more entries than any other single class run. The racing is always exciting and that's the reason most Contest Directors schedule this event on the last day of the contest. This year

to page 184

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NAMBA NATS

from page 179/48

the number of entries was below normal. Howard Power of Monterey, California, won the class driving a 60 size Wing Ding powered by an O.S. 46 motor, an Octura X455 prop and 60% fuel. This is the same boat that won the event at last year's Nationals held at Tacoma. The fast time of the event was a 1 minute and 30 second run on the six lap course by second place winner Denny Preston, the District 7 Director. His modified BMD Phantom hydro was K & B 7.5 powered and used a 1460 prop and 40% fuel. Third place was won by Jack Oxley of Los Angeles, California, who drove another Wing Ding 60 powered by a K & B 7.5. He also used an Octura X455 prop and 60% fuel.

After the racing was over all the contestants cleaned up and attended the Saturday evening awards banquet. It sure is funny how different people look all cleaned up. In addition to the normal trophy presentation to the event winners, the first 5 members were inducted into the NAMBA Hall of Fame. Myrtle "Mom" Coad, Don Coad, George Campbell, Al Metlak, & Gary Johnson were all inducted for their efforts in the creation, operation, & administration of NAMBA.

In closing, I would like to thank all the people who made the 1981 NAMBA Nationals a pleasant experience for me and the other contestants. As a contestant it is too easy to forget those people who give their time so that we can compete. The 1982 nationals will be held in July at Legg Lake in Los Angeles, California. Start making your vacation plans now so that you won't miss what probably will be the largest R/C model boat contest ever held. □

LOCTITE

from page 47/46

temporary bond while a medium coat provides a permanent bond.

Possibly the neatest product that Duro offers is called "Hobby Strip." This space age epoxy comes in thin strips approximately 1/8" thick by 1" wide by 4" long. You simply remove one of the strips from its package and knead it with your hands to form a putty-like substance. The kneading action activates the epoxies and it then may be fastened to any part of the

to page 186

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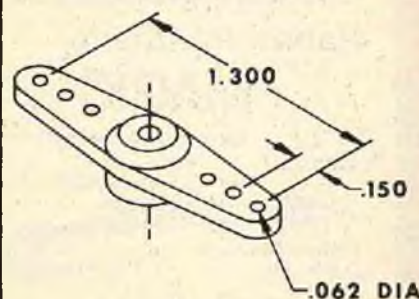
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LOCTITE

from page 184/46

model in the form of a fillet. The nicest thing about it is that it dries in about ten minutes and can be carved, sanded, drilled, filed, painted, or whatever. It's the easy way to make wing or stab fillets because it can be molded in exactly the shape you wish before it hardens.

Along with the aforementioned products, Duro offers many, many others designed especially for the craft industry. A copy of their catalog will show all of these in detail. They have special glues for plastics and one for glass. There is a silicone adhesive that works very well and a liquid lock washer cement for the Pylon boys. Every item that I tried worked extremely well, just as the package says it will. For more information on Duro Products, drop a line to Woodhill Permatex, 18731 Cranwood Pkwy., Cleveland, Ohio 44128. □

POU DU CIEL

from page 40/33

model.

Begin assembly by carefully centering the rear wing and screwing it in place. I used long sheet metal screws on mine, figuring if one pulled out, there would be lots more to repair than the screw hole! Snug the rear wing down and use it to align the main wing. Slide a piece of 1/8" music wire through the cabane. Use two Sig 1/8" landing gear clamps, with 1/2" sheet metal screws to hold the wing on.

Install the two short control horns on the wing, then build up the somewhat different wing actuator. The actuator consists of a piece of 1/8" brass tubing with a "joystick" in the middle and an arm at each end. Solder one arm in place. Slide a washer on, then push the tube through 1/2" of the fuselage. Insert the joystick, slide the tube out the other side of the fuselage, add a washer, then solder the other arm on (whew!). Make sure both arms point exactly the same direction.

Mount three servos towards the rear of the cockpit and make the one on the left side the elevator servo. Install a pushrod from the joystick to the control horn, then, with the actuating arms lined up even with the bottom of the fuselage, solder the stick assembly in place. Again silver solder works very well. To prevent sideways

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movement, the washers are carefully soldered in place close to the fuselage sides.

Connect the radio and spend a few minutes playing with the wing servo. Ideally, you should have more "down" movement on the arms than up. Remember, moving the wing's T.E. down will raise the model's nose!

Connect the two pushrods and try the controls. You should have 1/2" down travel and 3/8" up travel to start with. To set the incidence angle properly, raise the wing's T.E. 3/8" above the rear wing. This is a ball park figure. Remember, it's better to have too much positive instead of too much negative!

Epoxy the rudder in place and hook up the pushrod; 1 1/2" throw to either side is about right.

Follow the diagram to rig your model. I used some 50 lb. test fishing leader for rigging, but you could use Proctor turnbuckles and cable if you choose.

Use a 3" scale pilot attached to the cockpit cover as a handle for easy access. Install some 4 3/8" wheels with a collar on each side. Stow the receiver and batteries forward with plenty of foam packing. If you haven't done so already, bolt the engine in place and connect the throttle pushrod to the carb. Carefully balance the Pou 1 1/2" aft of the main wing spar.

Add your scale details, then get ready to fly your completed Pou.

Flying:

To fly well, your Pou must have an engine that idles reliably. Once you get your engine to idle well, you can make some taxi tests. Ground handling is very good. The Pou will track very straight and requires very little right rudder.

Once you get up enough nerve to let your model take-off, watch it closely. It should climb out at a shallow angle, flying very slowly. If yours pitches up sharply, and almost stops flying, don't panic! Run in some down trim and gently turn out of the condition. Come back on the throttle, and set her down. You will find the problem is either that the model is tail heavy or that you have too much positive in the main wing. If the C.G. is okay, adjust the incidence in the main wing a little at a time until you get smooth flights.

On the other hand, if your Pou runs down the runway on the mains, hops into the air, and dives back into the ground, you have too much negative incidence.

Remember, in any case, to do all flying in calm weather. The Pou is not a windy weather airplane! Mine flies along happily at about 1/3 throttle, flying slower than you would think possible. Have fun with yours. If you have any problems write me in care of R.C.M. I'll help you all I can.

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SAM CHAMPS

from page 28/27

completely different type of event from the others because there is no maximum flight time; once that engine stops it is up to you to soar for as long as you possibly can. There is also no set engine run time. Instead, fuel is metered out at the rate of 1/8 ounce per pound of model weight. Most of the guys are using O.S. .60 four-cycles with up to 18" props to keep the fuel consumption to an absolute minimum; ten minutes on one ounce of fuel is not uncommon. Of course, the rate of climb is nothing to write home about, but with ten minutes to get upstairs, who cares?

Texaco is always the most popular event at O.T. R/C meets and this year's was no exception. What was an exception was the unbelievable frequency congestion; out of 39 entries, better than one-third were on purple/white! If memory serves correct, there was a bunch on red/white also. And, since this is the one event with no max flight time, some fliers didn't get to make even one of their two allotted flights before the day was over. Times were very high, with three over one hour. Bruce Norman posted what is probably the highest time ever recorded in an R/C Texaco event, a remarkable one hour and 52 minutes, flying a Dallaire Sportster. Unfortunately, it was all for naught, as Bruce eventually found himself too low and too far away to make it back to the field, resulting in a zero score for that flight. You can bet it was not an easy thing for the C.D. to have to tell Bruce, but rules are rules. The other two over-one-hour flights were by Jack Alten, also flying a Dallaire, and Sweepstakes winner Don Bekins, who flew a much scaled-up version of Carl Goldberg's 1937 Gas Bird, predecessor to the Zipper.

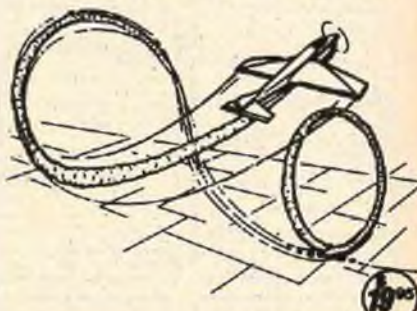
This year's SAM Champs featured two unofficial R/C events, 1/2A Texaco and Electric. The 1/2A event replaces .020 Replica (now all but defunct) and has proved to be very much more popular. Actually it is not really a "Texaco" event at all anymore; it's called that because it was originally an unlimited duration event, but recent West Coast contests (SAM Champs included) have imposed 15-minute maxes on the little birds to keep them from using up too much contest time... they fly better than they were supposed to! Rules call for the use of unmodified Cox reed-valve .049's (no R/C Bees) with stock tanks; unaltered fuel, and an 8 oz./sq. ft. wing

to page 194



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SAM CHAMPS

from page 190/27

loading. There's no limit on the size of the model. As it turned out, no one was able to make two maxes at the Champs, although Rogers Barton was just a minute and twelve seconds short with his Buzzard Bombshell.

The decision to hold an event for electric O.T.'s was a last-minute one that left practically no time to get the word out, thus we were lucky to get all of six entries. To void battery overheating problems in the hot weather, the models flew one flight each day at 8:00 a.m., all launching at once, two-minute motor run, no max. It was really something to see those ships all take-off in loose formation,

the soft whirr of their props providing a sharp contrast to the ear-splitting scream of the Schnuerle engines we had to listen to for the rest of the day. Roland Boucher, who co-sponsored the event along with his brother Bob, attended the SAM business meeting on Tuesday evening and made his pitch for the electrics, with the result that Electric will be a featured event at future Champs.

Free-flight claimed by far the highest percentage of out-of-state entries, but R/C did get a few. The highly competitive Texas R/C contingent was out in force and all five did their usual job of collecting a good portion of the trophies... in fact, the top five placers in every event were from either Texas or California. Other out-of-staters included two from New Jersey, two from Ohio, one from

Illinois, and one from Arizona. And, oh yes, can't forget Englishman Ken Hinton, the only R/C entrant from a foreign country, who flew a very pretty diesel-powered Zipper in Class B.

With the conclusion of the Victory Banquet on Thursday evening, where the many beautiful trophies and gobs of merchandise were awarded, the 1981 SAM Champs officially came to a close. It was a busy three days filled with many memorable experiences all overshadowed by the fact that we were there not only to fly old airplanes, but also to see old friends, make new ones, and just enjoy the good fellowship and camaraderie of many like-minded individuals. From that standpoint, you'd have to say that the 1981 SAM Champs was a 100% complete success.



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MIG 15

from page 14

same problem, because in the U.S. mail, arrived an isometric supplement to to the instruction book that answers all of the sub-assembly questions. This supplement is included in all subsequent kits. Building techniques are straightforward at this point to any other foam and fiberglass kit.

Construction progressed smoothly until a small part called the spar cavity liner assembly. This fit very nicely over the completed spar tongue but, in the wing halves, it was a poor fit. Nothing is printed as to location of spar liner in wing half. This was solved by placing liner over spar tongue, putting four small blobs of quick-set epoxy in foam wing pocket, placing wing over spar lines and lining wing root with raised mating area of fuselage side. After setting, carefully pull wing off spar tongue. You now have a wing section with a void on either side of wing spar covers of about 1/4" high and the full depth of the cavity liner which is approximately 3". This area was now filled with a balsa filler, taking care not to deform plastic liner. This was epoxied with slow cure epoxy and left standing in a vertical position until cured.

On the first page of the assembly booklet, a complete list of all needed additional items to build the model is given, including drill sizes, sanding blocks, brushes, epoxy, paints, etc., etc. Most all items are already in the experienced modeler's goodie box.

Covering:

After final sanding of wing and stabilizer assemblies, white EconoKote was used because of its low heat qualities and weight factor. This is important over foam which cannot stand high and prolonged heat needed for MonoKote or any of the other heavier shrink coverings. With proper preparation and care, it covers very nicely with the minimum of imperfections showing up.

The fuselage was painted Aluminum K & B Super Poxly as our paint scheme was the Czech Aerobatic Team colors. Wing covering was prepared as the instructions stated, and the whole airplane was sprayed silver.

After the paint job was applied, and the K & B epoxy hardened, the EconoKote covering started looking like our first covering job. We had followed instructions right down the line, including priming, sanding, and painting. Our finished wing and stab looked like a size 18 dress on a 14 frame. After a phone call or two, it appears the EconoKote relaxes and

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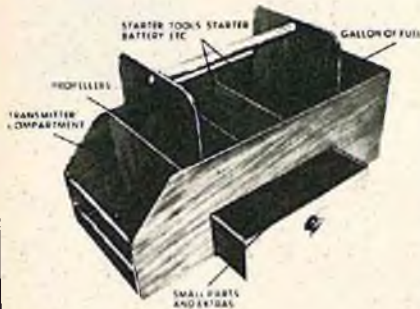
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bubbles up after this painting process. A fast pass with the heat gun solved the problem. The paint and EconoKote covering shrank up with no evidence of blisters.

Top Flite trim sheet and decals supplied with the kit finished off the model for that scale look.

Engine:

An O.S. Max .61 VF rear exhaust engine was chosen because our past experience with O.S. engines has been good and, coupling this with a Byro-jet custom header pipe assembly, made one of the finest power plants available. No matter which engine you happen to prefer, mounting instructions are supplied with the kit.

Mounting the engine with fan installed does take care as some close tolerances have to be maintained. Entry cone mounting location on the engine is achieved by the washer shims supplied with kit. This positions the fan for exact location to flow straightener hub. On our test airplane, .015 shims had to be added under the engine mounting lugs so fan clearance was equal all the way around the flow straightener.

Being around high speed machinery does command respect and with a five bladed fan humming along at 16,000 rpm, we are not about to put our fingers up underneath a partially hidden engine to adjust the needle valve. We manufactured a needle valve extension assembly with some 1/8 brass tube and an old .40 size broken needle valve. This extension was attached to the needle valve assembly on the engine with a piece of windshield wiper hose. This was used because of the heavy wall and was extended through a hole in the fuselage side under the wing. It is not that visible and leaves your fingers outside the fuselage for the final peak tuning. A balancing fixture is supplied with the kit for balancing the rotor. This is very important and don't treat it lightly — take time, follow instructions, and you will have a true vibration-free installation.

Engine starting is different with the starter extension, and if the modeler does not own a "Sullivan Starter," the starter extension kit requires some machine work to make it adapt to other brand starters.

An extension of 24" in length had to be built for a 12mm socket as the fan has a tendency to pop, or kick back, and loosen the mounting nut.

A Sullivan #448 fuel tank is provided and a small modification is required. It is clearly shown on a separate instruction sheet. Mounting the tank inside the fuselage on the supplied foam is a neat mounting procedure. Instructions call for hot glue and 5-minute epoxy. I substituted silicone rubber sealant for the tank



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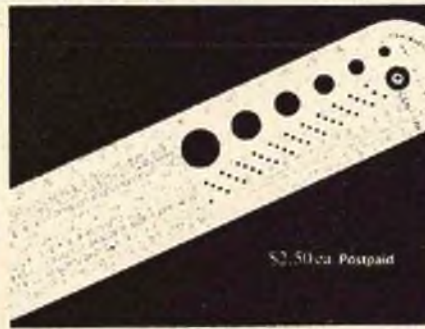
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mounting — worked just as good as hot glue.

Radio:

An R.S. four channel radio was used for the test model as mini-size servos and receivers are not required. There is ample space under canopy with lots of room to properly protect flight pack with foam.

Flying:

No extra weight had to be added to achieve the proper C.G. as battery pack can be moved way forward.

Control surface movement as called out in the instructions seemed to be minimal, however, we set movement per the instructions. Wheels mounted easily and nose gear steering linkage

is short and slop-free. The model sits very close to the ground and looks super real. Taxi was true, with very positive ground control. The model actually rotates on lift off. The mains stay on ground for a good 6' after nose wheel lift off. Once airborne, controls were crisp, but not as quick as a prop job, and control surface travel was just right, so follow instructions and don't second guess. The roll attitude is something to behold. Just picture the aircraft on a tight wire rotating around center axis --- no pitching, no tucking --- just smooth rotation. All controls are very functional and are needed for scale flying. The landing flair was much slower than expected.

It turns out not to be a rocket ship, but a very responsive, easily controlled aircraft and a real thrill to see in the air.

Conclusion:

Byron's MIG 15 turned out to be a true experience in vibration and torque-free flying. It is a model for the experienced builder, but can be easily flown by a modeler with aileron flying experience under his belt. As mentioned above, we had some irritations in the building phases, however, to see the first lift-off makes you forget that part of it. For more information, contact Byron Originals, P.O. Box 279, Ida Grove, Iowa 51445.

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STARS SCALE RALLY

from page 9

Byrne, VP, Dist II, AMA; Don Godfrey, President IMAA; Art Schroeder, Editor of Model Airplane News; and Harold De Bolt, AMA Hall of Fame member.

On Sunday, July 26, the day broke out overcast and cloudy with intermittent rain all day long, effectively cancelling out what could have been an even bigger day of activities — dammit!

In spite of the one day instead of two days of flying, it would appear STARS Fourth Annual Scale Rally was most successful and one of the biggest in the East, at least this year. Wait till next year!

The general feeling for the success of Scale Rallies throughout the country is their non-competitive nature. For the first time the Sunday flier comes into his own with no pressure whatsoever to do anything he doesn't want to do. □

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FROM THE SHOP

from page 4

..... You see, I didn't have enough room on the work bench (which is really a card table) for a saucer of water, and so I decided to wet the wood personally. With my tongue, that is. So there I am, a piece of wood in one hand, and a bottle of Super Jet in the other... and me in-between. I suppose it was inevitable. Gluing the plywood to my tongue, I mean. Unfortunately it was a rather large piece of wood, and I couldn't get it inside my mouth. It stuck out on both sides like a wooden bow tie that was setting too high. If we had lived near a cliff somewhere I'd have tried a bit of slope soaring. After awhile I got myself, my wife, and Kelly (he's my dog) calmed down. I had been running from one room to another making incoherent noises. Suzi had been yelling, "What... what?". And Kelly had been barking. Loudly.

Don, I'm here to tell you that none of this got my tongue loose from the ply. I could see myself growing old and eventually passing on to the great beyond with the situation unchanged. I could see it all . . . relatives and friends gathered, silently waiting, and then the minister says, "The family has asked me to explain the closed coffin. You see, there is this piece of plywood, and . . .!"

But enough of this, I said to myself, I've got to do something about getting loose, and do it now. I considered setting fire to it, but discarded that idea as even more foolhardy than the idea that had gotten me into this mess in the first place. I grabbed a pencil and paper and wrote a fast note for Suzi, "Phone the lumber yard and ask old Sam how to get a piece of glued plywood loose." I was sure Sam would know . . . he's got an opinion about everything. Suzi grabbed the phone and said, "Why don't I call the hobby shop?" And I wrote, "Don't call those knuckleheads . . . they're the ones who told me about wetting this stuff. The good Lord only knows what they'd tell us next!" I went into the bathroom and stood there looking at myself in the mirror. The piece of ply looked bigger than I remembered it. My tongue was getting tired, too. I could hear Suzi on the phone in the den. "Uh huh, uh huh, okay, thanks Sam." Good old Sam! I rushed into the den, my eyebrows raised, and grunted, "Uh? Uh?" She said, "Boil it!" I screamed "Uh? Uh?" "Sam said it would do it every time," she said. I don't suppose I have to tell you that we didn't boil it. What we did was cut the ends off . . . of the ply, that is. Now I could retract my tongue (and the wood) back inside my mouth, and what a relief. I can think of only a couple of things that would be worse than having your tongue stretched for a half an hour, but I don't want to even consider those. Just the thought causes beads of sweat to pop out on my forehead.

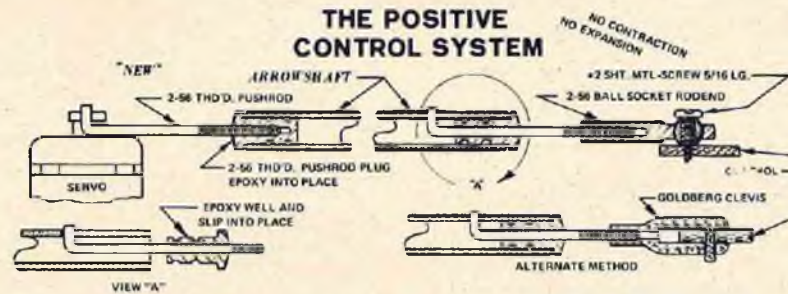
So here I am with a postage stamp size piece of birch plywood stuck on the end of my tongue. It would have to be birch. If it had been mahogany I could have at least stained and varnished it. With birch you got nothin' . . . no class at all. Our doctor said it should drop off in a few days. The ply, not my tongue. When it does, I'll give you a call. There's a couple of things I want you to tell Carl for me. I'd tell him myself but the doctor told me not to get too emotional . . . at least for awhile.

As always,
Bob

P.S. Everything I eat tastes like birch plywood! I'm convinced that the mahogany would have been better!

Thanks a bunch Bob, and that should take care of things until next month. □

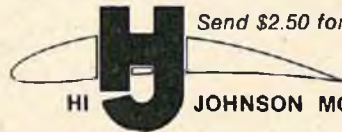
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