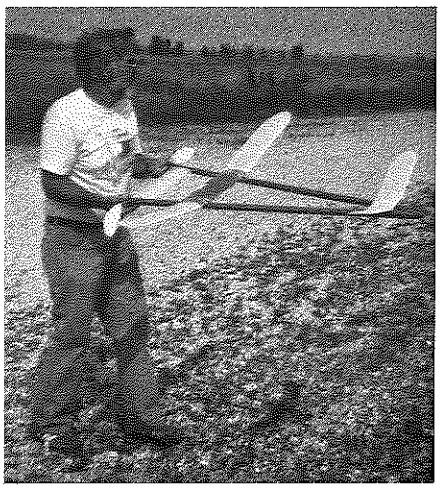
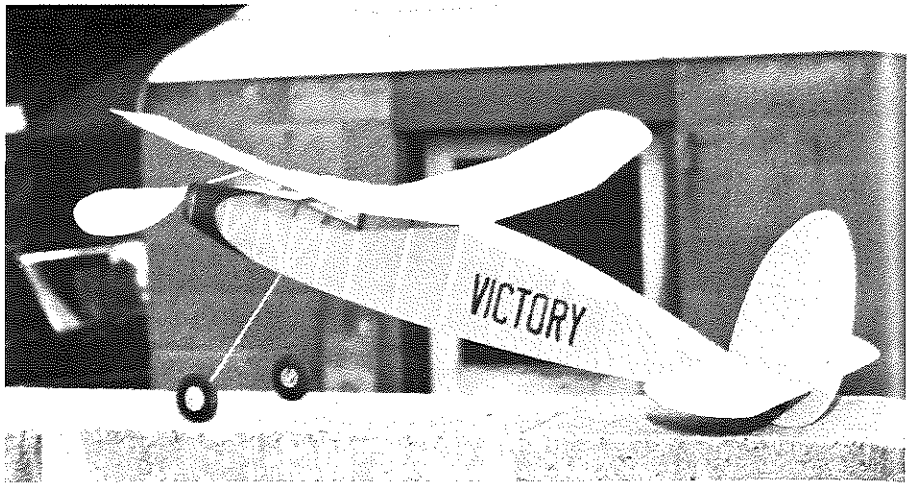


15. Bob Moulton appears ready to launch his streamlined twin pusher. Site is Bong Field, site of 1984 SAM Champs.



14. Roy Biddle sends this photo of a lovely Scientific *Victory* which he built. This is another good flying Korda design.

to trim twin pushers (for precision duration)." Haw-w-w!

FUN FLY

We might as well give the rubber band boys their due as more darn fun is being had with the Thirty-six Inch Commercial Rubber event. This is simply an event limited to cabin type models not exceeding 36-inch wingspans.

Ed Wallenhorst, who recently joined the SCAMPS, has proven to be quite the competitor winning first in Commercial Rubber, first in O/T Rubber, and second in Eight-ounce Wakefield. Busy boy!!

The most interesting model on the field was the 1940 *Record Holder* by Wallenhorst. This model has been recently approved by the SAM Board of Directors. The model design could compete in the modern Unlimited Rubber event and do very well. The design looks quite advanced for its day.

Contest Director Jim Adams reports another nice day that required practically a max flight every time to win. As it was, two seconds separated the O/T Rubber winners! With good rubber again available, it is no wonder we are seeing a resurgence of O/T Rubber interest!

After all that plugging for the rubber events, we would be remiss if we didn't at least show a couple of shots of good flying rubber models. Photo No. 5 is a shot taken at the SAM Champs, Westover A.F.B., showing Mike Moskow with a very neatly built Henry Cole design, *Smoothie*. This is not one of the simpler models to build, but the streamline types do fly very well.

Photo No. 6 shows a *Norseman*, one of the series of commemorative models put out by Cleveland to recognize those countries overrun by Hitler's legions in 1940-41. To name a few: *Flemish Defiance, Polish Valor, Austrian Chivalry* . . . actually six of them. If you want to build any others, this is simplicity itself. Once you have built a set of wings and tails, the same lifting surfaces may be used for all of the designs. You can have a lot of fun flying different style models with very little work.

Photo No. 7 comes from England wherein Dave Baker (the SAM 35 spark plug) has faithfully recreated Albert Judge's 1936 Wakefield winner. To prove the model's authenticity, Dave copied this one from an original kit loaned by Bert. You can't ask for a more exact replica than that! Flies great too!

ENGINE OF THE MONTH

Having turned the engine manufacturing business literally on its ear in 1938 with his sensational Ohlsson 23, Irwin Ohlsson decided to come out with a big

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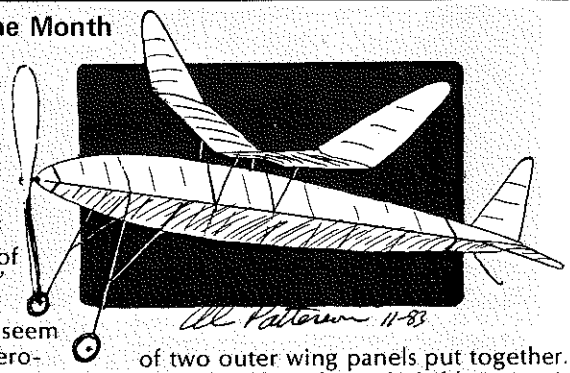
OLD TIMER Model of the Month

Designed by: **Roy Wriston**
Drawn by: **Al Patterson**
Text by: **Bill Northrop**



• Somewhere in time between the disappearance of motor sticks and the arrival of folding props, the "diamond" fuselage rubber model came into existence. There doesn't seem to have been any logical, aerodynamic, or performance improving reason for rotating a square cross-sectioned fuselage 45 degrees before adding wings, landing gear, and tail surfaces, in fact it sorta complicated the process, but they always looked good to me, and also, I guess, to the many modelers who created them.

One of these models that caught my eye, that I kept going back to in my magazine collection, was appropriately named *"The Diamond."* Designed by Roy Wriston, of Tulsa, Oklahoma, it was one of the more competitively successful diamond fuselage models, and was featured in the October 1937 issue of *Air Trails*. With a 29-inch long fuselage and tapered 150 sq. in. wing, it was a terrific flying model, but was undersize for Wakefield competition.

Roy modified the 150 *Diamond* to 200 square inches, lengthened the fuselage to 36 inches, and qualified for the 1936 Wakefield contest with an O.O.S. 41 minutes, 10 seconds flight. Photos of the Wakefield version described in the article indicate that he increased the center wing panel to 27 inches (18 spaces at 1-1/2 inches each), and made untapered outer panels with five 1-1/2-inch spaces, plus rounded tips three inches long. The stab was the equivalent of two outer wing panels put together. As photos show the Wakefield version, it should be Old Timer legal to make these mods to the plan if you want to fly in O.T. Wakefield. Check with John "Daddy Warbucks" Pond.

The smaller ship seems prettier to me, so we've stuck with that original *Diamond* plan, just as *Air Trails'* Gordon Light chose to do. Change it if you wish. Original building instructions were very brief, and I see no need to expand on them. If you can't build this easy one without instructions, you shouldn't even tackle it. However, the balancing and flight adjustment technique is very well described, and is a system that is very useful for any similar model, so we'll quote it word-for-word.

Select a very calm evening for test flying. A grassy field will reduce damage to a minimum during the first few treacherous trial glides. If your model shows stalling tendencies during these glides, move the wing backward a trifle. If it dives, move it forward. However, don't move the wing too far away from the center of gravity. While this might produce a reasonably good glide, it is practically certain to cause a disastrous flight under power. If necessary, change

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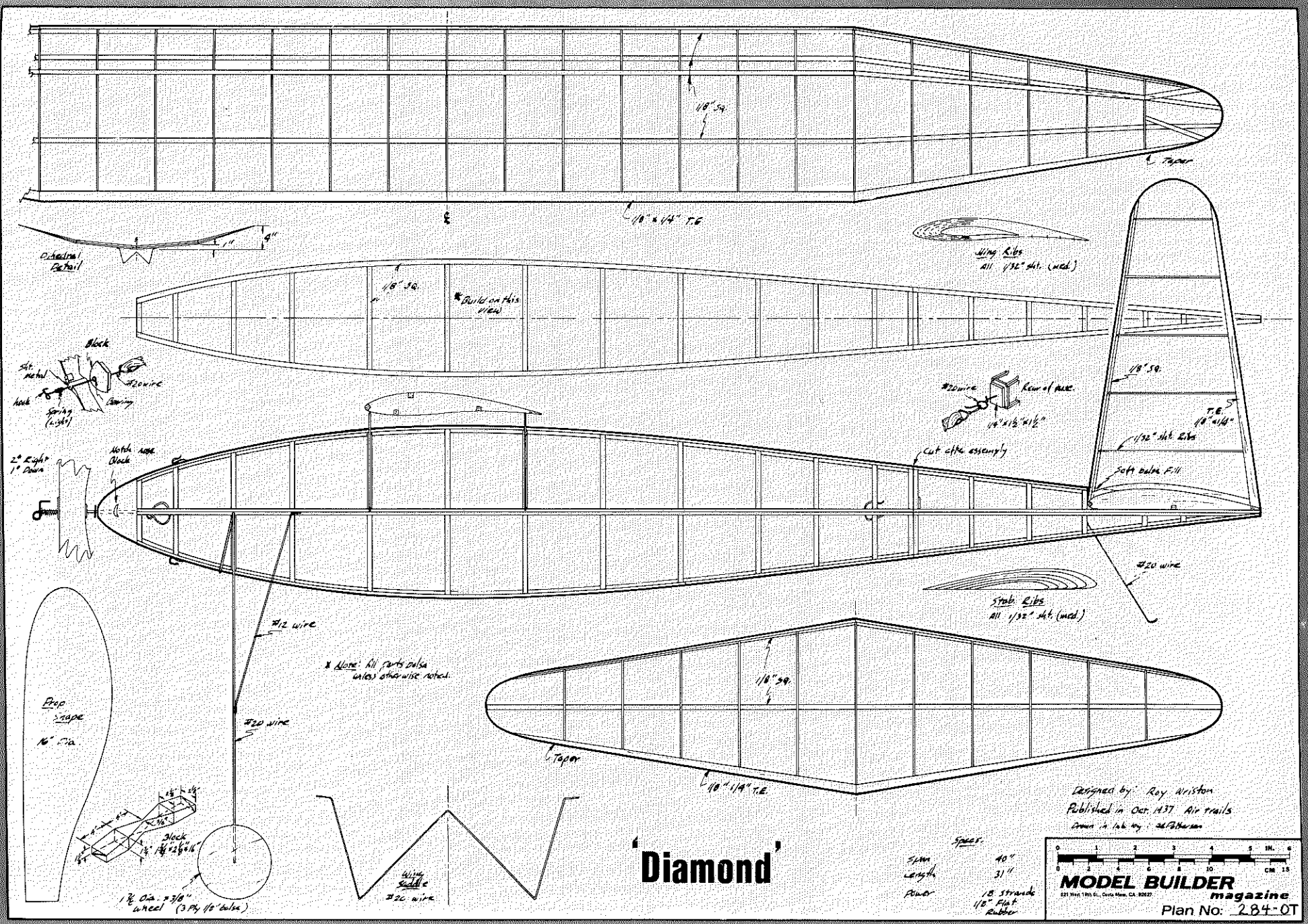

'Diamond'

Designed by: Roy Ariston
Published in Oct. 1937 Air trails
Drawn in ink by: M. Peterson

Specs:	
Span	40"
Length	31"
Power	18 Strands 1/8" Flat Rubber

MODEL BUILDER magazine
521 West 19th St., Costa Mesa, CA. 92627
Plan No: 284-OT

pushed into the balsa structure of the wing and fuselage. Do this carefully so that the wing is properly aligned.

The side and bottom fuselage stringers (for the large model) are 1/16 x 1/8 balsa sticks. They are mounted on edge, are full-depth at the location of the wing strut, and smoothly taper to nothing forward and aft of this point.

Covering follows standard procedures. Cover the entire model with white tissue, and after it has been water shrunk, give it about three coats of thin dope. The color trim is put on using colored tissue doped on over the base white tissue. The Sailor and his dog are an intricate pattern to cut out of tissue. Their dark parts are blue. Use a thin pen for the Cracker Jack box he is holding in his hand.

The following adjustments are made for flying the model. Make sure the model balances level when supported at the extreme wingtips. Mine needed some weight added at the tail end. Remove any gross warps in the wings or tail and make sure each wing has about an eighth of an inch of washout. Test glide the model to determine if some elevator and rudder adjustments are required. Try for a straight, smooth glide. Until the original model had the turbulator strips added, it glided very poorly. Adjust your engine for fairly low RPM and try a flight. The original model tended to spiral in to the left and required some right rudder to overcome this tendency. The right rudder will give you a right turn in the glide. If saving the model from a left spiral dive under power with the rudder results in a right spiral dive in the glide, you will have to resort to some right thrust adjustment.

Side windows (non-scale) or a profile pilot in the cockpit will probably reduce the model's tendency to spiral. Have fun with your Cracker Jack! •

Diamond . . . . *Continued from page 38*

the incidence of the wing rather than resort to any great change in the position of the wing. The usual incidence used is raising the leading edge 1/8-inch above the trailing edge. The center of gravity should be at the center of the wing.

Start the power flights only after the glide is satisfactory. Try about 100 turns for the first flight. Then increase the number of turns to about 250. Bad adjustments will be revealed during a flight under this amount of power. Correct any stalling tendency by increasing the negative thrust. This is conveniently done by changing the angle of the nose block. Insert small slivers of balsa between the top of the block and the first fuselage cross brace. Cement these blocks to the nosing as soon as you are satisfied with the adjustment.

About two degrees downthrust and one degree right thrust are used on the Diamond. *The rudder is given a slight turn to the right and the model flies in right circles. The model hops off in about three or four inches and pulls up into a fast, steep climb for about the first 40 seconds of flight. After this the model gradually levels off and a short time later goes into its glide. Immediately after the takeoff, the model starts a right circle and continues through the flight and glide. For maximum flights, about 650 turns can be stored in a motor with two inches slack.*

As usual, when researching one of these OT's, I start wandering through the other pages of the particular issue involved, and interesting things reappear. In this one, the 1937 Nationals were described, and the results posted (there were only 17 events altogether). Many familiar names were in the lists, but we'll mention a few who most everyone should recognize. F'rinstance, in Outdoor Open Class Cabin, Dick Korda was first with 54:13, the next closest being a C. Sholes at 2:39.8! Chet Lanzo and Frank Zaic appeared in 9th and 5th respectively. In Senior Mulvihill, There was Earl Stahl (6th), Dick Everett (7th), Wally (K&S) Simmers (8th), Mike Roll and Hewitt Phillips.

How about Indoor Stick Senior? Wally Simmers again, in first. Hewitt Phillips (6th), Sid Axelrod (12th). Indoor Stick Open? Carl Goldberg was second, and one Walt Good (!) was in 6th. Yes, and Walt was also 9th in Indoor Cabin. How about that!? In Gas Model Open, Maxwell Bassett was first, with Carl Goldberg in 2nd. In Gas Model Senior, we see Fisk Hanley in first, Sid Axelrod (Top Flite's leader for many years) in 7th place, Bob Long (Long Cabin), Chuck Tracy, current Sam President Mike Granier, Vern Krehbiel (VK Models), and Hewitt Phillips. And in Radio Control, from 1st to 6th place, it was Chet Lanzo, Pat Sweeney, E. Wasman, Walt Good, Leo Weiss, and B. Schiffman.

Hey, great idea! Why don't you build your wife or girlfriend (who may also be your wife) a *Diamond* for her next birthday. Just think of the fun she'll have retrieving it while you fly it for her! •

Volts Wagon . . *Continued from page 28*

thing, send for the plans immediately before the rush commences. Even with the best of service, it'll take **Model Builder** a week or two to get them into your hands. *(Include First Class postage for the fastest return. wrf)* That's OK, because you have some homework to do: while you're waiting, go back through all your back issues of **MB** for 1983, starting with December, then November, etc., and read each of Mitch Poling's columns until you've read everything from 1983. When you're done with that, find everything you can by Larry Jolly (also in **MB**). You'll have to read his stuff twice, or however many times it takes you to understand it. His literary style is a bit quirky, but it is worth the effort . . . he knows what he's talking about!

If the plans still are not back, go back to 1982 and read Poling's columns for