



Portrait of a champion right after finishing a flight that has won him all the marbles! Easy to hold that big multi machine in the palm of your hand.

daddy rabbit

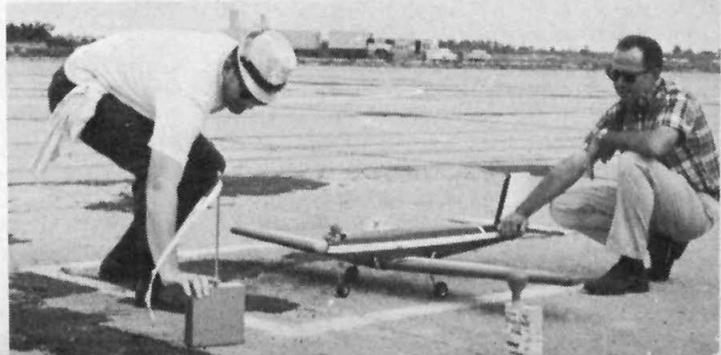
By JIM WHITLEY . . . '66 Nationals multi winner in full construction form to help you up the ladder of contest-winning. It isn't the magic formula that will change you overnight from a loser to a winner, but if followed without change, it certainly can give you the boost that you have been seeking.

► The Daddy Rabbit was designed with only one purpose in mind. There has been no attempt to design the prettiest, lightest, or most compact plane. This is not an all-purpose plane adaptable to .45 and .49 type engines. The basic design of the Daddy Rabbit is such that the best results will be attained through the utilization of a real healthy .61 eng. Again, we aren't trying to conserve fuel. Whether or not

anyone agrees with the fact that a goal has or has not been reached in the basic design concept does not concern me. In other words, the Daddy Rabbit was designed with the idea that it just might possibly give me the slightest edge in competition. To achieve this goal one must take the entire AMA pattern, weigh each maneuver and decide for himself what is most important. *(Continued on next page)*

And here is the happiest moment of all. Receiving the emblem of your supremacy with Miss Model Aviation to let you know how good you are.

Nothing like having the best pit man for you. Phil Kraft hangs on while Jim tunes his engine, using Phil's equipment helped get this pit man!



Daddy Rabbit—cont.

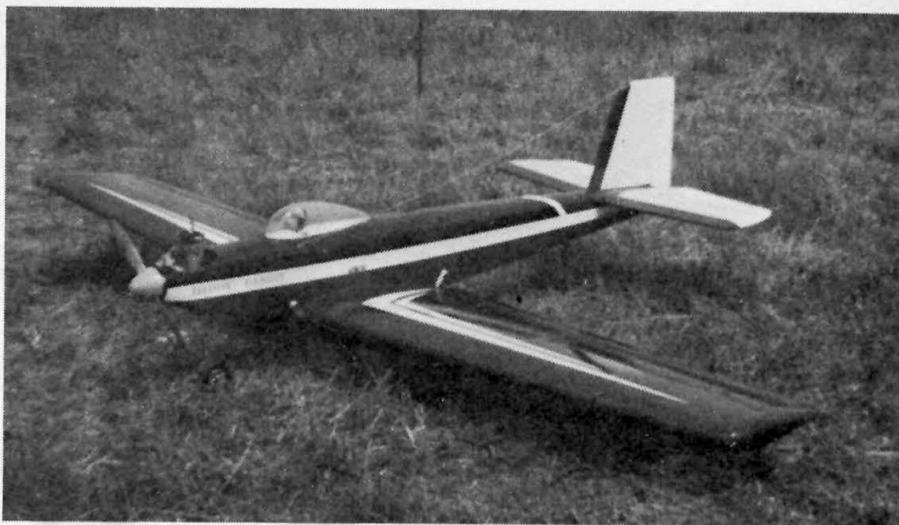
There are ever so many variables to contend with. The most unpredictable of all variables is weather. If we could be assured that there would never be any turbulence, gust, cross wind landings to master, or that which requires a little more attention to details is a descent presentation in a stiff cross wind. Too, how do you feel when a nice cross wind comes into play just before the tail slide? All of these things happen, and I suppose that most of us think that we have all the bad luck and the other fellow has all the good, but for the most part, circumstances will balance. Then, there is another line of thought that bears a little consideration. That being that luck is where opportunity and preparation cross. In either event, these things, we know will happen, can be practiced, and then coped with when they arrive. Something we can do before we practice is to be sure we have a flying platform that is worthy of being practiced with.

Back to old man weather. We, in the Southeastern section of the country can expect some pretty bumpy flying conditions during the contest season, so to me it seems reasonable to make planes accordingly. If we could be sure of those perfect conditions just mentioned, there would be far fewer differences of opinion as to exactly what the attributes of the best contest machine should be.

There are those who say that all Class III planes are the same, and only the pilots are different. I go along with the theory that the pilots are different—but so are the planes. The excellent pilot can make the average plane look pretty good, but with competition as it is today, every little bit helps. Again, we are not trying to win open pylon, or compete with a Veco .45 or Merco .49, or endeavor to make the tightest turn without stalling. These are not items to be scored in the AMA pattern. The Daddy Rabbit is the author's idea of a set of compromises rolled into one plane for one specific purpose, best possible Class III machine for all conditions!

I have been asked at contest sites, by letters, and by phone, how I justified this or that about the design and why I did something contrary to what someone else has advocated. I have not tried to justify anything and do not intend to now, except to say that for me it works best at this time.

Just a word about design theory. One July evening in Chicago, Phil Kraft and I were talking about model design and the difference in the two planes we were flying at the '66 Nationals. Phil's sentiments were that most of us work on a design and refine it until everything works pretty well and then we look the plane over and find some theories as to why this and that has a lot of merit.



Red, white and blue paint job added to the overall good looks of this fine machine. Veco Custom

.61 really pulled this heavy (8 lbs) machine through the most difficult of the maneuvers.



In the middle of number two circle and at the end of a high scoring flight! Competition tough

at '66 Nats, judging even harder so each flight score had to be a good one to get you up front.

There are many aspects of design that, in my opinion, are optional and some are not. The main thing in all of my experiments that has remained absolutely constant is the fact that the results have been far superior with the wing, and the stabilizer in parallel planes with the line of thrust, or the commonly referred to 0-0-0 theory. There are some fine competitors who advocate the lifting stabilizer theory, or positive incidence in the horizontal stab. Perhaps my thinking is wrong—to me it seems that with throttle on, there will be a higher velocity of air percentage-wise moving over the tail surfaces than there is over the wing. When the throttle is reduced, naturally the plane tends to pitch up. I personally dislike holding down elevator to maintain level flight while reducing speed. Only thing worse than this is the need for constant retrimming. Just one bit further and we would get into differences of opinion on piloting technique and I promised not to get into the subject of flying and stay with the plane being dis-

cussed. Besides, the flying bit would fill a complete publication.

It has been said many times before and the same applies in this case. There is no claim that the Daddy Rabbit is the "Ultimate" for Class III competition, but it is felt that should you decide to try one, you should not suffer too much handicap with your decision.

The Daddy Rabbit which was used to compete in the '66 Nationals was test flown three weeks previously. Unfortunately, the life of this ship was just under three months. During that period Daddy Rabbit was entered in five contests. The results were four first place wins before the FAI meet in Oklahoma last September. After the first official flight at this meet, the Daddy Rabbit and I were in a little practice session and consequently lost a decision to the Oklahoma sod. (*This was the bee sting incident. R/C Ed.*) So, you can see that the design has been good to me.

The Rabbit which competed at the '66 Nationals (*Continued on page 55*)

Ready-to-Fly!

R-C

To Fly - YOU JUST

1. Glue pre-cut wing halves together.
 2. Mount tail surfaces.
 3. Attach control surfaces
 4. Install engine and equipment. (not included)
- NOTHING To Cover or Paint

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Features Fuel Access Hatch

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Span: 65"
Area: 585 sq."
Sym 17% airfoil
for .45 - .60 engines.

Uses 10 channels or proportional Rudder, motor, elevator, trim, and aileron control.

FLIES COMPLETE AMA PATTERN

Thunder BALL new!

READY-TO-FLY R/C

Span: 65"
Area: 585 sq."
Sym 17% airfoil
for .45 - .60 engines



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With 5° Swept WING \$44.95

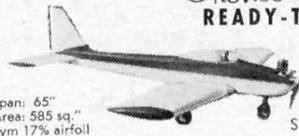
Model is designed to fly with 10 channels or proportional Rudder, motor, elevator, trim, and aileron control.

FLIES COMPLETE AMA PATTERN

Bronco

READY-TO-FLY R/C

Span: 65"
Area: 585 sq."
Sym 17% airfoil
for .45 - .60 engines



STANDARD WING \$39.95
Swept WING \$44.95

Model is designed to fly with 10 channels or proportional Rudder, motor, elevator, trim, and aileron control.

FLIES COMPLETE AMA PATTERN

READY-TO-FLY R/C "Go Go"

\$39.95

Span: 65"
Area: 585 sq."
Sym 17% airfoil
for .45 - .60 engines.



Uses 10 channels or proportional Rudder, motor, elevator, trim, and aileron control.

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for .35 or .45 engines



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being tried out by the NAA Flightmasters this spring. The event will be called a "Rally," as distinguished from a "Contest" with the purpose being to attract the many scale modelers in the country who prefer not to participate in "deadly serious" competition events.

An example of the difference in emphasis is the fact that prizes will be awarded on the basis of ticket drawings. Also, each entrant will receive a souvenir memento of his participation, as well as an official program. Other details are still being worked out, but we will try to include them in a forthcoming column.

The Rally will be a two-day affair on May 6th & 7th. The first day will be set aside for a giant exhibition of all types of scale models (R/C, FF, U/C, Rubber power, towline, rockets and even plastics.) This exhibition will be held in the North American Aviation recreation facilities. Also on the first day an all-day swap session will be conducted for old engines, kits, supplies and what-have-you. The day will be topped off by an evening banquet complete with entertainment at a nearby restaurant. We understand the entertainment will consist of humorous aviation movies, narrated by a Mr. Zeno Klinker, who is a dedicated aviation historian and writer.

The second day will be set aside for all types of scale models sport flying at Sepulveda Basin. Again, contest type "pressure" will be completely absent, with the accent on FUN!

Daddy Rabbit

(Continued from page 28)

weighed in at 8 pounds and 2 ounces, dry. With a twelve-ounce tank, the take-off weight was pushing 9 pounds. The Rabbit I am now flying weighs in some 10 ounces

less. I might add that weight was added at the center of gravity to get up to this weight. To me, this is where the Rabbit flies best. The present Rabbit seems to me to be a good 20% better than the first one.

This design has ample frontal area and a good .61 type mill with plenty of torque required to do an adequate job. The construction is straight forward and should present little difficulty to the experienced modeler. The ribs for the taper wing can be made in one hour once you have the tip and root rib accurately finished in 1/4 inch plywood. The ribs can be sandwiched between the two finished in this manner. If this does not meet your fancy, there is always the method of cutting a foam wing, cover with poster type cardboard, mark the rib stations, and you guessed it—run it through the saw—beautiful, absolutely perfect rib templates. I prefer the first method.

I won't try to cover why everything is where it is, but I will try to cover just a few of the aspects. First, to have an upright engine mounting on the type bearers shown doesn't hurt the performance of the engine in the least. A good solid mounting will help the top end as well as the idle. To get the thrust line indicated, the top block is of necessity the depth indicated. It is not recommended to install the tank any lower than will fit in the compartment shown. I have not experienced any problems with the Veco 61 idle in this location. The 5 1/2 in. distance between the firewall and the second plywood bulkhead will accommodate a RST 12 oz. nev-R-leak Pylon Brand square type fuel tank. I modify the tank with two straight outlets and mount the fuel tank with Taurus-type installation.

Much has been said about ailerons. Strip vs. conventional type. I, personally, prefer the strip type, but the most important item here is the installation. There can be abso-

lutely no play or binding or you will be fighting up-hill all the way. A genuine asset here is the utilization of a new item from Rocket City R/C Specialties, 1901 Polk Dr., Huntsville, Alabama. Chuck has outdone himself this time. "The Missing Link" it is called, and it is a real clever little ball and socket affair which eliminates many problems. As for aileron differential and throw, I use the Aileronee type with the center of the nylon hole 7/8 in. above the center of the aileron. This will be close. Trailing edge stock of the 1 1/4 in. variety is utilized by rounding the leading edge of the aileron. This will give sufficient taper to both top and bottom sides of the aileron to give the desired effect. That is, the aileron can be applied with a smooth touch without fear that the wing tips will jump around. Judges don't like jumpy wing tips.

The landing gear position in relation to the center of gravity will probably seem to some fairly close. The 7/8 in. spacing is for the purpose of being able to get the airplane on the main wheels before the plane attains flying speed and again points can be obtained by delayed definite roll on the main gear and then gently easing over on the nose wheel on landings. You will find the hard type nose wheel helpful when placing the main gear this close to the C.G.

It seems that there is a great deal of difference of opinion about tail surfaces. I guess everyone is entitled to his opinion. I know I have mine. Here again no warps can be tolerated. The 1/16" sheet is applied with a non-shrinking type adhesive such as Hobbypoxy. When dry, cover the vertical fin with tissue to preclude any chance of warping. The rudder is 3/8" sheet sanded to 5/16" and is not tapered, but only rounded at the trailing edge. The elevator has but very little taper for the same reason. It has been my experience that

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*Writes S. W., San Diego, Cal.

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*J. E. H., Pittsburgh, Pa.

"Equipment works very well."

*L. S., Kingsport, Tenn.

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this will cause these control surfaces to be very sensitive around neutral. In other words, the surfaces of the elevator protrude into the slipstream when viewed from the top or the bottom of the horizontal stab. Now, we have a situation exactly opposite from that of the aileron in response, or tail surfaces that are extremely tight around neutral. "Toy" airplanes tend to do like big airplanes in this respect. The pitch is much slower in response than roll axis. O.K.? There are many times when coordinated rudder is a must for a real clean maneuver. In the execution of the four point roll for example, you will find that you don't have to beat the top rudder to death to get results. Too, on the tail slide the rudder is responsive right up to the very end. It helps!

This brings us to the installation of push rods. I prefer to install all radio equipment and pushrods prior to covering the bottom of the fuselage; using this method you can support the pushrods by bracketing the pushrods at about the half way point. This eliminates the problems of vibrating pushrods and the possibility of getting control movements due to G forces.

If you have properly aligned warp-free tail surfaces and the C.G. is properly located, The Daddy Rabbit should track through all maneuvers absolutely true. The one asset of this model I have appreciated most is the fact that it seems to be completely honest. That is, the plane pretty well reacts to the same control movements in a highly consistent manner. Should you try the Daddy Rabbit, I sincerely hope you have as much pleasure flying it as I have had.

Round and Round

(Continued from page 23)

short race times, they seem erratic and hard to control their consistency over the extended duration of the Marathon bashes.

"Again all 3 top places were won by Midwesterners, all with Haay Roe 90% nitro fuel."

P.S. Kilsdonk's new Tigre did 1:09 for the 35 lap heat in rat.

* * *

To write well one must suffer. These words are often hurled at young students of journalism and literature who have suffered nothing more than a big protest march to the dean's office or an exhausting sit-in.

Trite though they may be, true they are. To prove it, I quote from an anonymous newsletter "Widow's Weeds" published out in the never-never lotus land of California. If suffering would automatically make a masterwork, Ibsen and Poe would slip a notch on the rating pole. Although too long for publishing in an unexpurgated condition, the introduction and one of the features is reproduced:

"Here We Are! AN INTRODUCTION

In the model-aeronautics field there are innumerable newsletters, papers, and magazines devoted to the various phases of this hobby. There has never, until now been a publication about the distaff side—the weekend widows. As an introduction here are the views and policies of this publication.

1. While model aeronautics is a whoop-de-doo-have-a-beer-with-the-boys type hobby for the hubby which keeps him off the streets at night, it is not and from all present forecasts, will never be *FAMILY ENTERTAINMENT*. This is contrary to all popular propoganda from subversive contingencies insisting otherwise.

2. It is time for the over-looked, unlauded better halves (us) to be considered. We who tackle the gravel impregnated trouser knees and castor oil stains should be recognized.

3. This publication will contain general news and helpful hints pertaining to the interests of the S.C.M.W. (Southern California Modeling Widows) and is for all women connected with the growing group of ground-pounding pilots. Some of the standard features in the Widows Weeds will be:

a. GETTING ACQUAINTED WITH YOUR FLYING FIELD

These articles will prepare you for excursions into the outer limits. The no-man's land of Cox and McCoy. What is available and unavailable in the pot hole, weed infested toiletless modelers Nirvana. Each feature will inform you of the variety of aeronautical oases and what to expect."

"California Flying Fields: THE SEPULVEDA BASIN . . . by Amelia Airphart Nestled between the San Diego Freeway and Balboa Blvd. is a natural retreat for the modeling male—The Sepulveda Basin. Its vastness and panoramic splendor, uninhibited by trees or buildings is reminiscent of a Texas cow pasture standing firm against the tide of the San Fernando Valley.

"Entering this panoramic palisade, we bid farewell to the last permanent structure built by man—the U.S. Army NIKE Site. Through the iron gates that mark the boundaries, we travel down the corrugated trail leading into the heartland.

"Taking the turn off for the U-Control field, we see on our right the territory of the Free-Fighters. If you are lucky you may see one of the natives wearing the traditional Bermuda shorts and Coor's T-shirt gyrating wildly at a large mass of angles flying about 30 feet over head. Experts are not yet sure about the meaning of this primitive dance but it seems to be a plea to the air gods to either keep the craft up or bring it down. In any case, it is an interesting sight.

"Finally we reach the modeling mecca—the U-Control field. Surrounded by acres of banana squash and alfalfa are 6 asphalt circles in various stages of disrepair. These ruins were supposedly set about the twentieth century A.D. for purposes as yet unknown. Native services are still held here depending upon the weather.

"Culturally lacking, the natives of this area are none the less usually friendly after sunset. A WORD OF WARNING. Great Caution should be exercised in approaching the aborigines. DO NOT TEASE OR HARRY THE MODELERS AS THEY PERFORM THEIR TASKS. Severe injuries have occurred from such attempts. Rather patience and long suffering silence will reap the rewards of an occasional wave.

"As this is a very remote and desolate area, home comforts such as food and water should be carried with the traveler. Two changes of clothing are needed as the temperature can fluctuate between 104 deg. in the shade (and there ain't none) and 20 deg. below zero. Pitch hemets as well as parkas are carried and used frequently by all knowing and experienced travelers.

"Although devoid of most conveniences, two structures across the U-Control field in the R/C range are indicative of the modern sanitary standards slowly creeping into this backward area. Erected by the Andy Gump Company, these pine-sol scented buildings are wonderfully up-to-date in their simplicity and styling. Amazingly enough this primitive area boasts toilets you don't have to flush!

Heading our pedal-driven land rover back towards civilization, we bid farewell to this interesting area. A nice place to visit but thank God you don't have to live there. . . . Do you?"

"NEXT ISSUE: Mile Square—The Iwo Jima of Southern California."

(Continued on page 58)