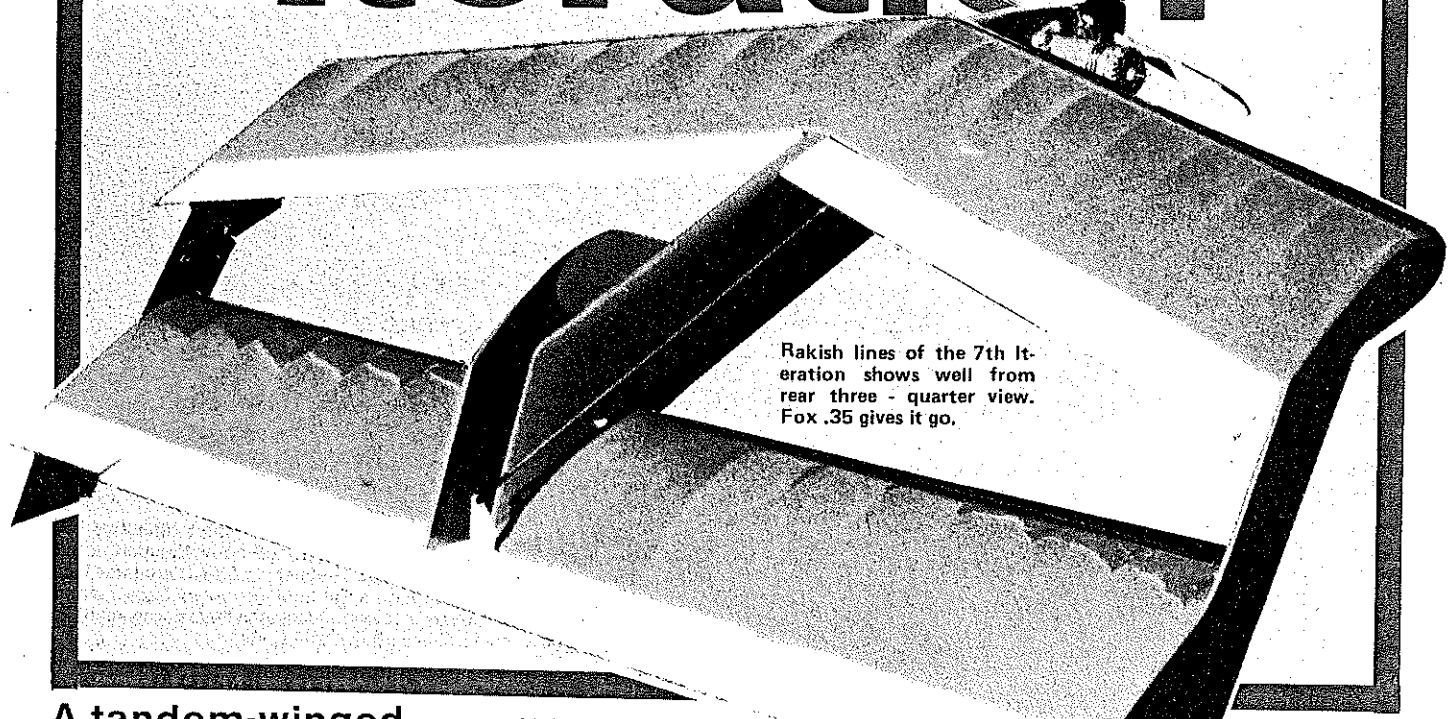


John Hunton

The Seventh Iteration



Rakish lines of the 7th Iteration shows well from rear three-quarter view. Fox .35 gives it go.

A tandem-winged sport/stunt CL model that is well-suited for a .35 engine. Has unique appearance reminiscent of modern Bert Rutan's Quickie and also much older bipes. Seventh version is well proven.

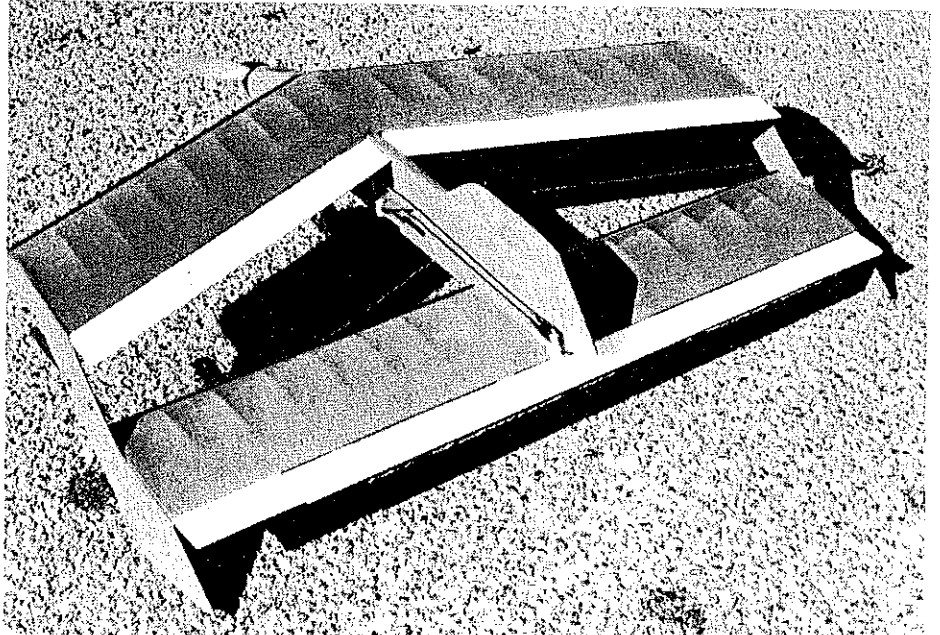
32.6-in. span and 23.0-in. length and very compact. The Compact size also leads to lightness; the model, ready to fly, weighs 32 oz.

Aesthetically, there are the swept lines of a modern jet contrasted to the bi-wing arrangement of yesteryear. Perhaps this model is reminiscent of the exciting Bipe design by Harold

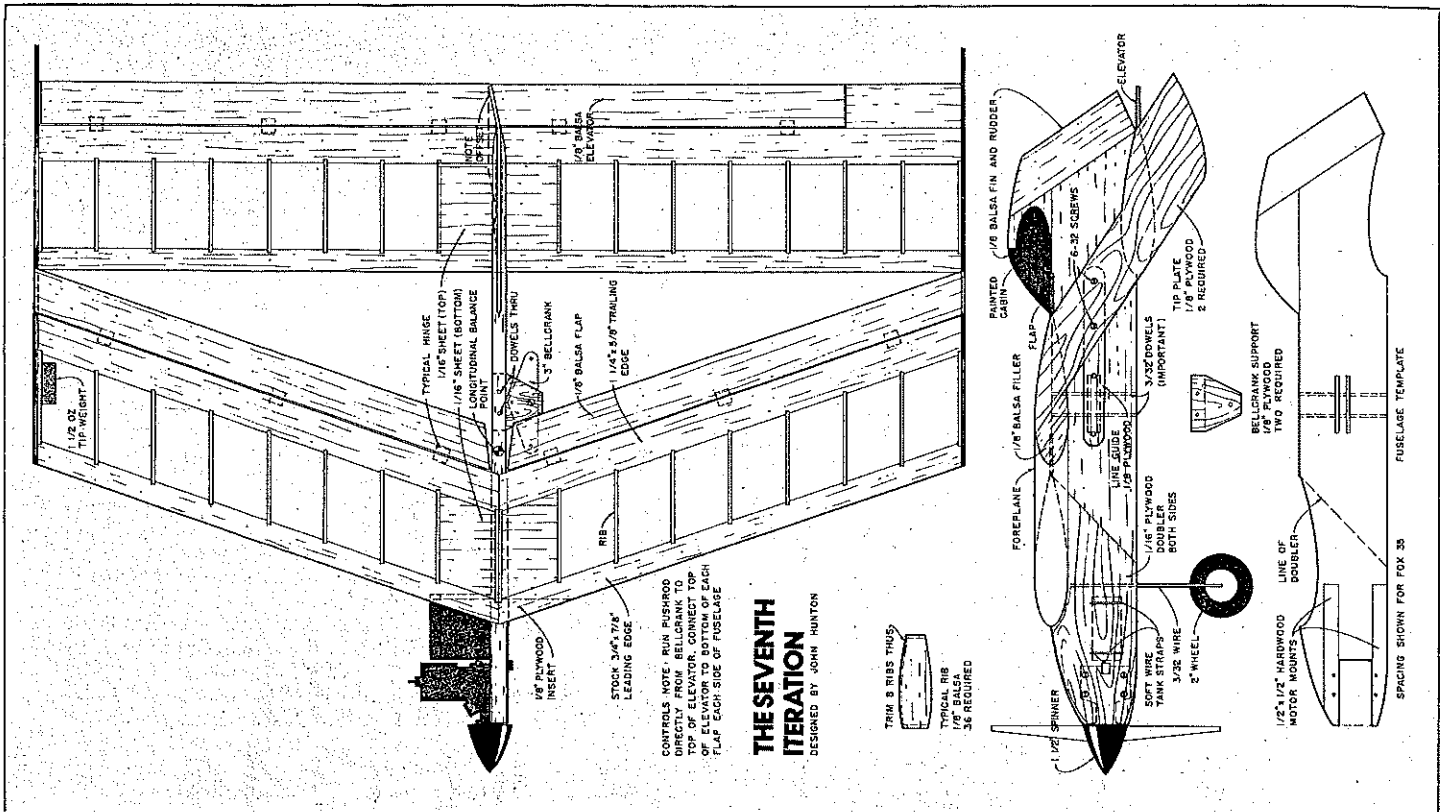
DESIGNERS of model airplanes have the opportunity to develop new concepts through iteration, or repetition, particularly through Control Line modeling—which provides one of the simplest forms for satisfying performance and aesthetic goals.

The First Iteration was an experimental RC model inspired by Bert Rutan's Quickie. The third version of this model flew very well, and even competed in some 1/2A Pylon Races. Translating the existing design to Control Line proved to be more difficult than I had imagined, but the Seventh Iteration is refined and flies well.

This tandem-wing airplane has some definite advantages over conventional planforms. For a given wing area of 383 sq. in. (about average for this type of model), the overall dimensions of



Control system is a bit unusual. The elevator is driven directly from the bellcrank, but the wing flaps are driven by elevator horns on each side of the rudder. Note offset elevator.



THE SEVENTH ITERATION
DESIGNED BY JOHN HUNTON

deBolt. It is definitely not run-of-the-mill in appearance, and it does perform well.

Construction. Cut the fuselage from 1/2 x 3 sheet balsa. Install the 1/2 x 1/2 hardwood motor mounts, spaced to suit your engine. This model should perform well with any engine from .15 to .60, but keep the center-of-gravity (CG) where it is shown on the plan. Apply the 1/16 plywood motor mount doublers to each side of the fuselage.

For most gluing, I use aliphatic resin (white glue, such as Sigbond or Titebond), along with spots of cyanoacrylate (such as Hot Stuff or Jet) for rapid adhesion. The cyanoacrylate works fine in the presence of moisture, and the white glue is economical.

Install the bellcrank mount. Be certain to install the 3/32-in. dowels through the fuselage and bellcrank mount so that the mount will not pull out.

Wing ribs are identical for both wings, which means they can be stack-sawn for quick building. Trim 1/16-in. off of eight ribs for the center-section sheeting, which is applied to one side only. Leading and trailing edges are stock shapes, 3/4 x 7/8 for the leading edge, and 1 1/4 x 3/8 (or a combination of shapes approximating this) for the trailing edge.

Notch all leading and trailing edges 1/8-in. deep for the ribs, then butt-glue the fore-plane (front wing) members together with cyanoacrylate at

the proper angle. Assemble the wings. Install 1 1/2-oz. weight in the outboard of the fore-plane. Cut a 1/8-in. slot in the foreplane leading edge, and install the plywood reinforcing plate.

Cut the tip plates and line guide from 1/8 plywood. Cut the wing flaps, elevator, fin and rudder from 1/8 firm sheet balsa. Sand everything smooth and to shape. Drill all of the required holes, then seal them with fuel-proof dope. Color-dope the complex shapes, and then cover the simple surfaces with heat-shrink covering, such as MonoKote or Coverite. Cut away the finish where surfaces join, insert the landing gear, then assemble everything with epoxy.

Continued on page 110

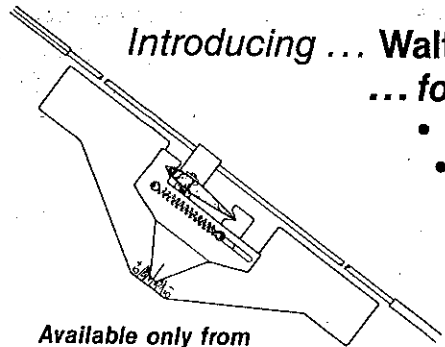


Compact size of the 7th Iteration is readily apparent when held by Clay Hunton. Still, it has plenty of area for good stunting.



The author's daughter, Mary Carol Hunton, holds the framework of an earlier version which had a tandem wing and tandem engine. Twin engines abandoned due to trouble of starting both engines.

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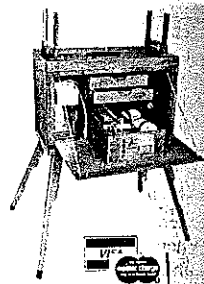
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After a bad launch, which was too low for turning back and too high and heavy for catching, Ned weaved through the low spots around the face of the hill, stroked out for that second hill, and found the peace and insurance a 20 mph wind can give to an 11-lb. bird. The wave was working, and Ned—like Meyer—showed us what that state of the art was once (and is now, again) with high-performance Sailplanes.

It's a shame that meetings like Cumberland come only once a year. It's a greater shame that we can't come up with events for Soaring that would encourage further development of such Soaring marvels. We might have to eliminate spot landings and two-min. precision tasks for such planes, but other tasks could be devised. If they're not, we'll have to wait for Cumberland again—next year.

Dan Pruss, RR 2, Box 490, Plainfield, IL 60544.

RC Pylon Racing/Hager

Continued from page 40

and how the Quarter Scale event fit into the Cleveland Air Races:

"Before becoming General Eisenhower's personal pilot for the duration of World War II, Larry Hansen had a model airplane supply business in Lakewood, OH. Event sponsorship and support from individuals and companies such as Hansen Manufacturing Company has provided the nation with the premiere event of its kind... the Cleveland Air Races.

"The history of one 1980 event, the Formula One Hansen Trophy Race, is currently being published in three parts starting in the February 1980 issue of *Wings Magazine*. Part one of the

story, by Pete Bowers, gives us a look at the 1947 event called the Goodyear Trophy Race and features a slick little airplane called Cosmic Wind.

"The Cosmic Wind will fly again in 1980 at the National Air Show. Close in, a quarter of a million spectators will witness the latest technology in Quarter-Scale, highly maneuverable model aircraft. Like the NASA/USAF HIMAT, the fighter of the 21st century, these unmanned small aircraft will fly their mission remotely-piloted.

"With equal and affordable opportunity for the individual sport aviation pilot, the Quarter-Scale, one-design class of Formula I aircraft will race for the coveted Hansen Trophy. This approved and scheduled event, the Hansen Trophy Race for Formula I Quarter-Scale, will be introduced to the nation as an event of the 51st year of the National Air Races. The 1980 National Air Races will be conducted during the Cleveland Air Show at Burke Lakefront Airport in Cleveland, Ohio on Labor Day Weekend 1980.

"As the Championship Race drew near, it was apparent that the man to beat was Gary Villard, as Gary had won three out of the five races.

"There were 16 fliers on the circuit this year at the end of the season. The group was split in half, with eight people to go to the Championship Race.

"The bottom eight racers flew in a consolation race held by the CRCC of Cleveland. The top two finishers went as alternates for the Championship Race.

"There were elimination races on Saturday and Sunday, and finals held on Sunday. The races were run just like the real ones, and they were a part of the air racing program—treated just as the full-size planes.

"After the smoke cleared, our champion was Gary Villard. Gary won the Hansen Trophy, approximately \$250.00 cash, the championships jacket, and the VIP vacation to Las Vegas. Wow, what a way to end the season.

"Second place was Bernie Oldenburgh, third was Ed Nobora, and fourth, Phil Spear."

It appears to me that this shows just what can be done if people put their minds to it. I have been to a lot of races where all we have are the racers, their callers and/or wives. There aren't enough of us who are doing our part in promoting Pylon Racing. See you next month.

Bill Hager, 4622 Bridgeport Dr., Garland, TX 75043.

7th Iteration/Hunton

Continued from page 43

Mount the line guide, wheel, tank, and engine. Hinge the control surfaces. Mount a 3-in. bellcrank. Use RC-type pushrods to hook the bellcrank directly to a horn on top of the elevator. Drive each wing flap independently from a horn on top of the elevator on each side of the fuselage, to a horn on the underside of the wing flaps. Rig both control surfaces to move 20 degrees up and down.

Notice that a portion of the elevator is fixed. It is common practice for Stunt model designers to provide extra span on the inboard wing so that, during maneuvers, more lift will be generated by the inboard wing to counteract the weight of the lines and to cause the model to bank away from the circle and create more line tension. The only problem with this system is that the creation of lift also increases drag which, in this case, causes yaw toward the center of the circle—an adverse

effect.

The Seventh Iteration, however, has a nearly full-span elevator. When control is applied, lift is generated by the elevator in the opposite direction of overall system lift. The negative lift is accompanied by drag which, this time, is on the outside of the model.

It is possible to trim this model to fly very true to the circle, and to fly with minimal yaw and roll through maneuvers. As you trim your model, you may want to add tail weight to increase control sensitivity.

CL Aerobatics/Paul

Continued from page 45

In the *double nickel*, we had Jamboree, Blue Pants, Feno, Coon Dog, Draggin', Jolly Flapper, the first Fierce Arrow of Bill Netzeband, and what the writer believes is the first of the 'Jet'-style Stunt planes on record: the Wicked Witch, a sort of F-86 by Don Hoag in *Air Trails*, November, 1955, p. 26. Correct me if I am in error. Perhaps the writer should mention here that the Stunt bibliography is divided into sections for Classic types, Semi-Scale, Jet, and a broad category to include: Odds, Mods, Biplanes, Half-A, and Profiles. To this I hope to someday further divide into the Futuristic group, a designation first coined, I believe, by Jerry Pilgrim at the 1975 FAI tryouts.

For 1956 we see Jumbo, Black Hawk, Flipper, Lady Black Widow, Sky Devel, Curtis Special and the Aero Bat. In 1957 it was Bluebird, The Gambler, Lil Dynamite, Jolly Flapper, Thirteen, and a name which many of us could use to describe our craft: Flying Board! For 1958, it was El Conquistador, The Lieutenant, Ruffy, Twin Stunter, Atom, Short Snorter; in 1959 there was Boomer, Dominator, Hopper, Econostunt, Shrunken Treasure, Slick Stunt Ship (by Riley Wooten of Combat fame, no less), Crusader (this one by Clair Sieverling), Ruby, Devil Dart, Lil Blue Angel, Stuntacular, Savage II, Gobble-swantz, Kingsweep, E-Z Duzzit, Firefly, and an airplane name which finally gets away from some of the more banal types, and perhaps prepares us for some of the more stylish names: the Ballerina of Charlie Lickliter.

Moving into the next decade we have the famous Ares of Bill Werwage, Lark, Grey Ghost, Peacemaker, Gigantis, and a semi-scale called the Topsy-Nipper. In '61 there were Nova, Carousel, Jay Dee Falcon, Sun Devil, Argus of FAI team member Steve Wooley, Shark 45 of National Champ Lew McFarland, Mutalator, Which-a-Way, and the Phoenixian. In '62 we have Lady Luck, Tucker Special, Dragon Fly, Hummingbird, Doomfly, Eureka, Challenger III, U-Name-It, Monster, and the Skylark (of Jean Paillet). For 1963 we have Skyscraper of Bob Palmer, Airon, Impala, Gremlin, then the jet-type airplane which many say was the first Nationals-type plane making extensive use of inked lines: the Barracuda of John Peck, which received the most appearance points at the 1962 Nationals; one of the landmark articles on Stunt: Bob Gialdini's Olympic Mark VI; and, finally, the plane whose picture on the kit box probably sold more kits than imaginable: the Skylark of Ed Southwick—remember that beautiful maroon plane on the box?

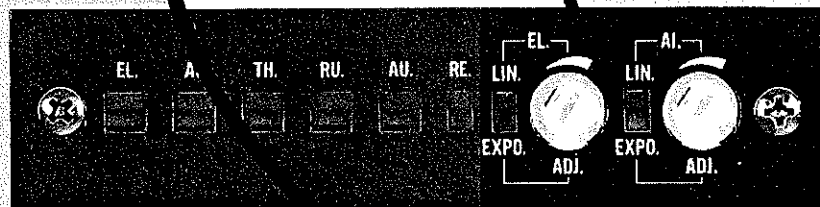
In 1964 we were treated to La Donna, Pegasus (Paillet, not Bob Howard), Zephyr, Red Wing, Envoy, Lil Stingray, Sting Ray, and the Electra X-35. In 1965 there were Dolphin, Shiek, Lynx, Blue Angel, Stunt-Liner, Eclipse, and the Midas. In 1966 there were the Chizler, Talon (the first of Jim Kostecky's beautiful airplanes), The Dancer, Hot Shot, Supersonic Stunter, and the Demon. Next year we had Mystere, Road Runner, Rayette,

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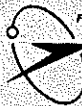


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Moving into 1968 we had PA-6 of Bob Baron, Novette, Coyote, Corrigan, Novi III, Freedom 45, All-American Eagle and the Formula S. The Tempest of Bart Klapinski never had an article, but it won the Nats in 1967, and Rich Loomis had a twin-engine plane called Two Bits that won Senior Stunt. At the Nats of '68 we had the Apterix of Jerry Worth, Senior Norm Whittle with his Playboy 35, and Phil Granderson with El Gato. In 1969 there were Mirage III, Knight, Hi-Lo, Sweeper, Torino, Scottsman, and at the Nats were the Gypsy of happy Jim Silhavy and the Patriot of Gerald Phelps. In 1970, we had Classical Gas, Oriental, Sabre, and the Charger. In 1971 there were the Cobra, Continental, Stunt Machine, Humbug, Old Glory, Marut,

Phantom, and the Vulcan. In the summer of '72, we had Touch and...?, Nimrod, Sweet Pea, Pinto, Card-Shark, Be-Witched, and Bob Lampione's beautiful United.

For 1973 there was Mustant from you know who (Rabe), Volunteer from you know what state, and Thunderchief from Bobby Who. In '74 there were Genesis 35, Stiletto, Sunshine, Avenger, Bishop, Miss Lexington (that classic of its time!), and Moon Dust. In '75 there were Scorpio, Panic, Astarte, Sundance Stunter, Metaphor, Skyfire, Miss Jill, and Dancing Girl. In the Centennial year we had Torch, Squirrel, Dazzler 40, Cardinal Sinner, and the Tercel. For 1977 there were Stilares, Miss Kell, Sunspot and Wild Goose. Bringing things up to date for the past couple of Nationals and FAI tryouts, there were Apparition, Centurion, Statesman, Hallmark, Perroquet, Impulse, Miss Poppy and Ted