

TUBE  
AND SAILCLOTH  
TWO-PLACE HOMEBUILTS

DISPLAY UNTIL 06/22/92

JUNE 1992 VOLUME 8, NUMBER 6

# SPORT **Pilot**

HOT KITS & HOMEBUILTS

## CLASSIC LITTLE TOOT BIPLANE

LATEST ON  
RANS PURSUIT



FLIGHT  
TESTS:

- **CHINOOK II**
- **RANS AIRAILE**
- **CHALLENGER II**
- **CLOUD DANCER MOTOR GLIDER**

U.S. \$3.50 CANADA \$4.50







DESIGNED OVER 30 YEARS AGO,  
THIS SMART LITTLE BIPLANE  
STILL CHARMS MANY BUILDERS  
WITH ITS MODERN LOOKS

# GEORGE W. MEYER'S LITTLE TOOT

Small, light, maneuverable biplanes have always interested homebuilders, and still form the nucleus of modern aerobatic aircraft. When the Pitts S-1 was first introduced, it became the darling of the aerobatic crowd, but Betty Skelton began winning awards with her *Lil' Stinker* and the demand for that aircraft soon surpassed that of the Pitts. Another tiny biplane, the Smith Mini Plane, came along, gained wide acceptance by homebuilders, and continues to be seen at EAA fly-ins all over the country. The Baby Great Lakes, another fine small single-place design, is also still being sold and built.

The unique Little Toot, an aerobatic biplane designed by George Meyer in the late 1950s, is an extremely attractive little airplane, with long landing gear legs and streamlined interplane struts. Many Little Toos were built through the years, with approximately 50 of them still flying. In fact, this summer, owners of these great little airplanes are gathering at the Captain Jack Thomas Airport in Eldorado, Kansas, in honor of the designer of their aircraft. Although the talented George Meyer passed away about ten years ago, his excellent aircraft design lives on. George's son, Thomas R. Meyer, who worked with his father helping to design and build the original Little Toot, will

represent him at the convention, along with his sister, Joy Meyer Kelley.

Tom hopes that this assembly of Little Toos will help to promote continued friendship and communication between current owners, who are always eager to see how their fellow pilots have built, finished, and sometimes modified their *Lil' Toot*. New builders will also benefit from the experience of current owners, and learn increasingly efficient construction methods and techniques.

Not only Little Toot owners, but all aviation enthusiasts are invited to this first annual tribute to George Meyer, which has been planned and organized by Thomas Meyer and Jayhawk EAA Chapter 88. We're all eager to be there and we wish them all great success.

Reasons behind the staying power of George Meyer's Little Toot design are varied. First of all, its looks are unique. With its charming pug-nosed cowl, pleasant stubby fuselage, swept-back wings, and squared-off tail, it has a look all its own, resembling no other small biplane. All these, and its long landing gear legs, combine to give it a very classy appearance.

**BY  
NORM GOYER**

Little Toot was first designed to be powered with a Continental 90, but larger engines, some up to 180 hp, have been installed by owners who wanted extra performance for aerobatic flying. George Meyer knew that builders liked to be able to choose from a variety of engines, so he provided a number of cowling outlines, suggesting that a plaster mock-up of the cowling be built after the engine was installed. In that way, it could be custom-fitted to the contours of the fuselage and the individual engine.

Little Toot's fuselage may also be built in two different ways. The original design consisted of a 4130 steel-tube framework, from the engine firewall to the rear of the cockpit, after which a monocoque aluminum-sheeting tail section was fitted to the front. George Meyer's plans also provide optional dimensions for the fuselage for those builders who prefer a steel-tube framework all the way back to the tail.

A welded aluminum fuel tank is installed just in back of the firewall, with a filler cap and gas gauge in the top. (A ribbon-type Taylorcraft fuel gauge is suggested.) The fuselage is of standard homebuilt tube construction, and the tail is built up of metal (a Luscombe unit can be trimmed down and used, also).

Cabane struts are of the typical small biplane type, with multiple lower attach points on both sides of the fuselage, and a single attach point at the center of the underside of the top wing, both toward the front and toward the rear. A large windscreen and headrest are just to the rear of the wing. For those owners who desire protection from the weather, a sliding canopy may be installed.

George Meyer chose a NACA 2212 airfoil with a 42-inch chord, and a wingspan of 18 feet, ten inches at the top wing. There are several methods of building the Little Toot's wing ribs. One is to stack

## GEORGE W. MEYER'S LITTLE TOOT

sheets of plywood, then band-saw them all to shape at the same time. Another is to build them up with sticks and gussets. The wings are bolted to the bottom of the fuselage, and the top wings to the cabane struts. Two welded steel-tube wing struts keep the wings separated and in the proper incidence. Twin flying wires crisscross the wings, holding them in the correct tension for both lift and landing loads.

Little Toot's spring-steel landing gear was stock Cessna 140, and a standard Scott-type tailwheel, tied to the rudder movement, helps keep the little taildragger honest on the runway.

The original Little Toot was white with red trim and the bottom of the lower wing had a red and white checkerboard. Another pleasing paint scheme is that of the "Hawk Pshaw," modeled after the Curtiss Hawk P6E, with eagle claws painted on the landing gear. One such design is owned by the great Arlo Schroeder.

Like a number of other little biplanes, George Meyer's original single-place Little Toot design was modified by some of its builders to a two-seater. For those pilots who prefer to take their little biplane up and play around the clouds, however, the original Little Toot is just about perfect.

Interested in building your very own Little Toot? You're in luck, because plans for this outstanding aircraft are still available. Just contact: Thomas R. Meyer, George W. Meyer "Memorial," 170 Park Lane, Lewisville, TX 75067; phone: (817) 430-3507, also (214) 242-4684 (weekdays 8 am to 5 pm); fax (214) 242-1378.

*Sport Pilot Hot Kits & Homebuilts* would like to take this opportunity to thank Tommy Meyer for generously allowing us to share these excellent plans and photos with our readers.

Also, make plans now to attend the gathering of Little Toos at the Captain Jack Thomas Airport in Eldorado, Kansas, this summer, courtesy of the Jayhawks EAA Chapter 88. See you there! **SP**

Jayhawk EAA Chapter 88 is hosting a Little Toot fly-in this summer. The airplane's designer, George Meyer, who passed away several years ago, will be represented there by his son, Thomas Meyer, and his sister, Joy Meyer Kelley.



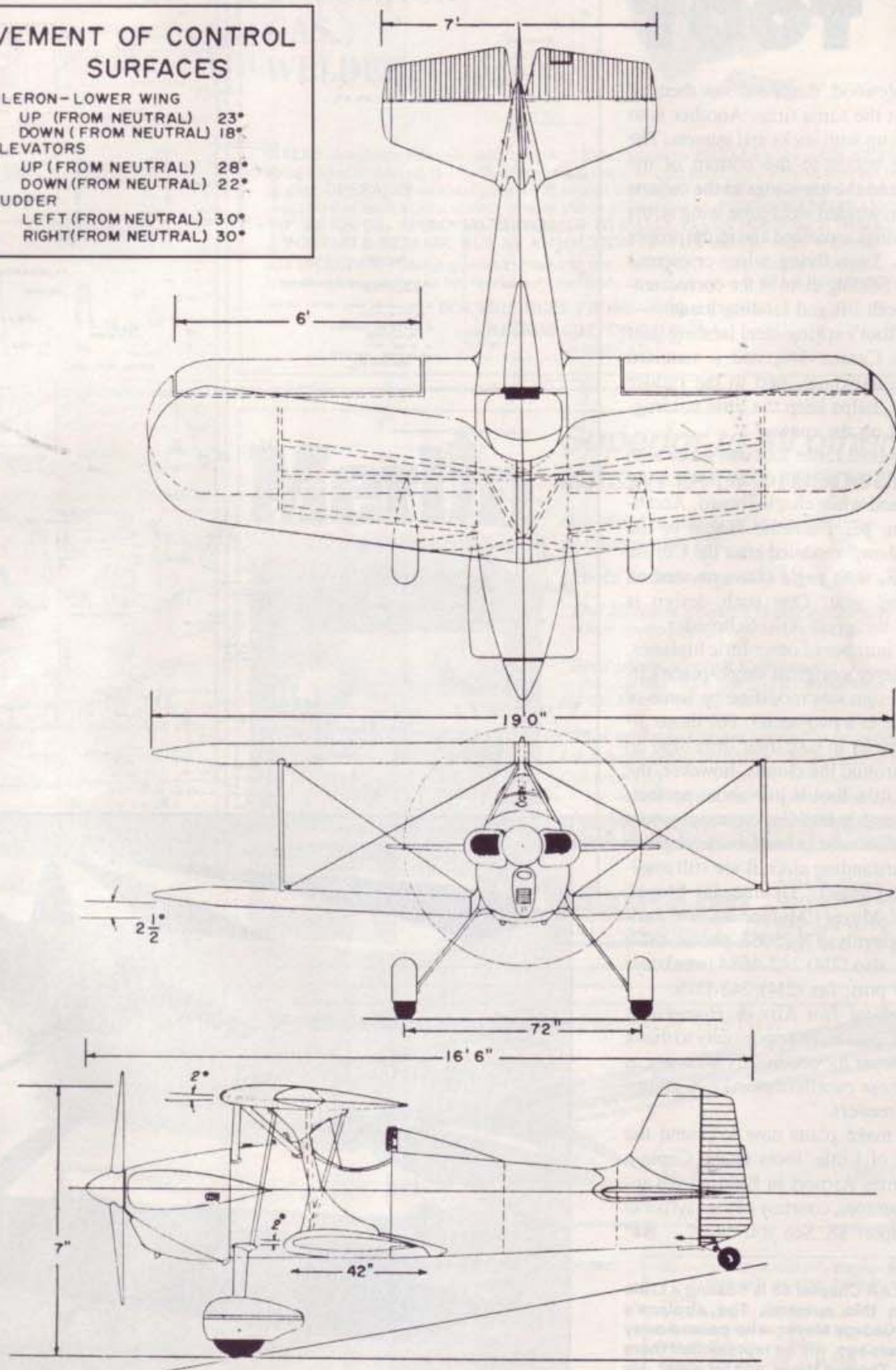
In the Little Toot, George Meyer designed a highly maneuverable biplane which attracted many dedicated and loyal homebuilders.



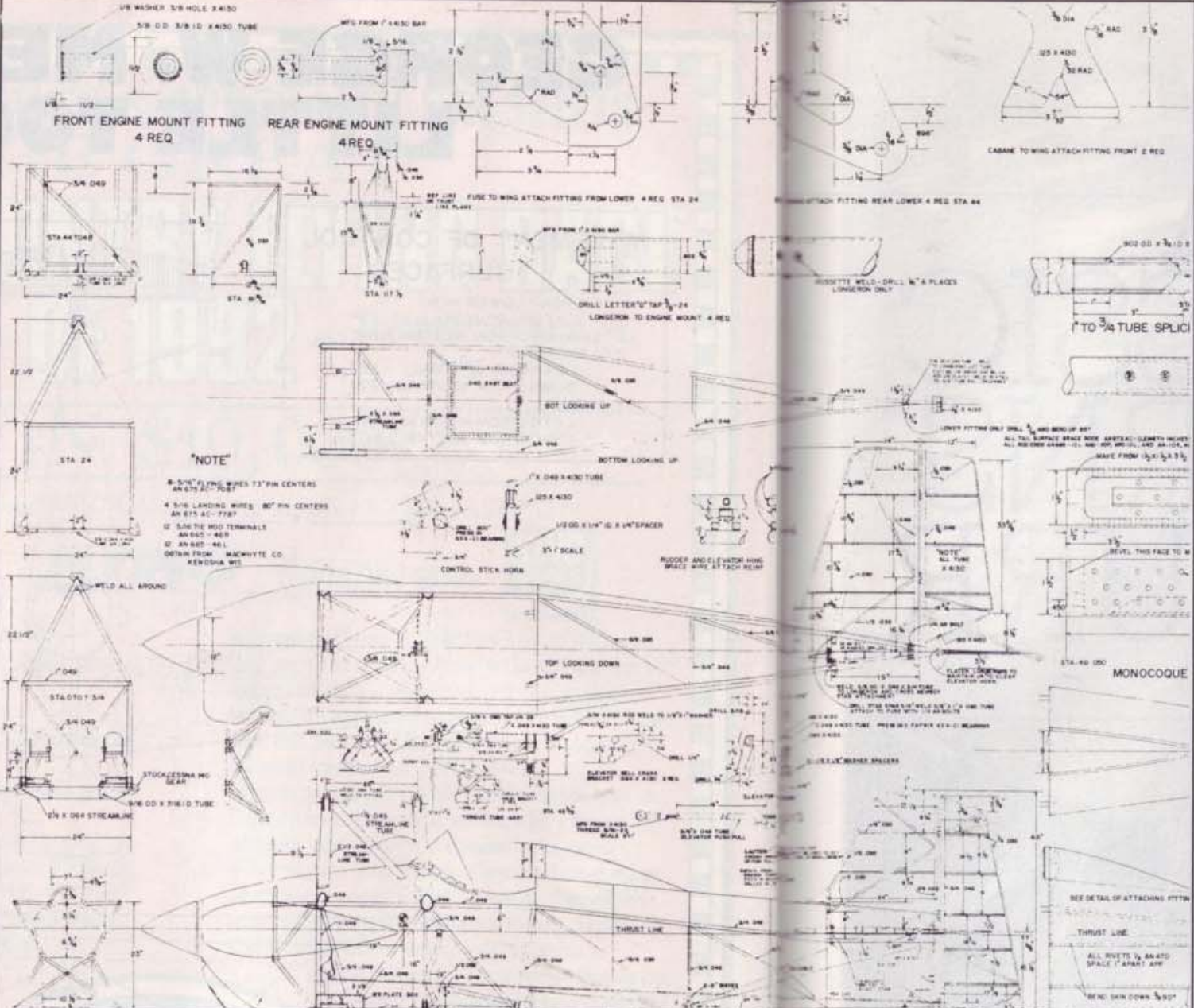
# GEORGE W. MEYER'S LITTLE TOOT

## MOVEMENT OF CONTROL SURFACES

1. AILERON - LOWER WING
  - UP (FROM NEUTRAL) 23°
  - DOWN (FROM NEUTRAL) 18°
2. ELEVATORS
  - UP (FROM NEUTRAL) 28°
  - DOWN (FROM NEUTRAL) 22°
3. RUDDER
  - LEFT (FROM NEUTRAL) 30°
  - RIGHT (FROM NEUTRAL) 30°







DCC