



Jock Powell demonstrates the action of the drag flaps at the tip fins.

you work at Chance Vought). The basic scrambler system for the flappers, designed by Jack Powell, features all cable actuation. The flappers are torque-tube operated, and directional control is obtained by drag flaps mounted on the tip fins. These drag flaps are controlled by a cable direct from the rudder pedals and a spring returns them to normal. Both rudder pedals may be depressed simultaneously to give some degree of approach control. Neither spoilers nor air brakes are to be installed at present.

During the construction so far, many errors in design have become apparent, two in particular which we consider most objectionable being, firstly, the two-spar wing arrangement and, secondly, the tip fins. The first has increased the weight unnecessarily and made it difficult to get into or out of the cockpit, and the second have been quite time consuming to construct. Fortunately these are minor mistakes which will be corrected in any future ship.

Construction has progressed rapidly and the ship should be in the

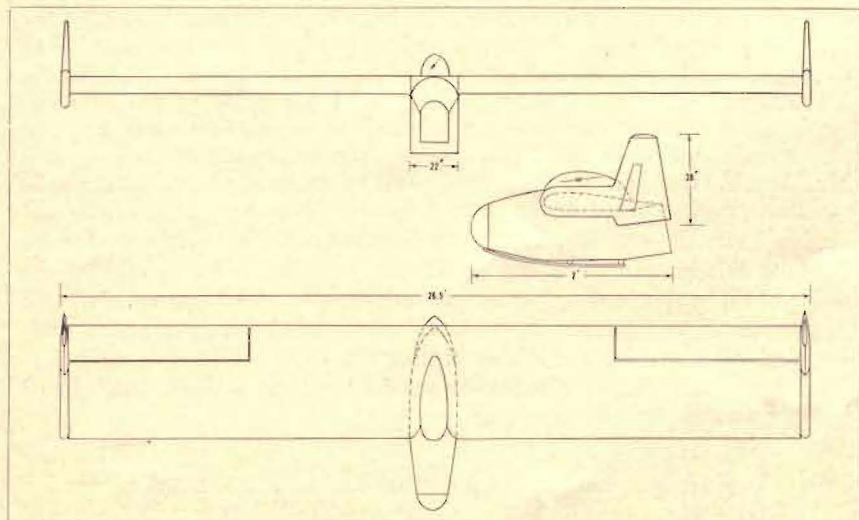
air before this gets into print, by which time we will have spent an estimated total of 650 man hours on it. We feel that this is very good for a prototype. I emphasize, however, that this low construction time was due primarily to an initial desire to keep everything as simple as possible rather than due to the unorthodox configuration, though the plank layout has helped.

No plans have been made for the future, but assuming that everything goes during the flight tests as the calculations indicate, I think we will have taken a large step toward an economical sport flying sailplane.

The EPB-1

Wing span.....	26' 6"
Length	7' 9"
Wing Area.....	106 sq. ft.
Aspect Ratio.....	6.6
Empty Weight.....	180 lb.
<i>Estimated Performance</i>	
L/D max.....	18-1
Rate of Sink.....	3.3 fps
Rate of Climb.....	Slow on Monday A.M.

I. Weyl A. R. Development of Tail-less Aircraft — Aircraft Engineer.



STOP PRESS!

On Saturday the 19th of June it was rumored that the EPB.1 would be out on the field for its first tests early next morning, so your Editor, badly misinformed, arrived before the sun at Grand Prairie airport to witness the tests. Sufficient to say that the tests were being carried out at Jap Lee airfield in Irving some miles distant, so what was intended as a first-hand account now becomes second hand.

It appears that Al, Phil and Jock, with Eric Craik and staff photographer, Marshall Claybourne, had gone out about 5:30 A.M. to meet local C.A.A. representative Mr. Tuttle, who was to witness the tests.

Al Backstrum elected to make the first flights and hitched on to a 360 feet long rope pulled by a car driven by Phil Easley and Jock Powell. On the first tow while travelling about 35 mph the sailplane began to oscillate directionally and the pilot cut loose.

The second and final tow was made up to a speed of 50 mph and the directional oscillation was so violent that when the pilot was forced to release he could not prevent the machine ground-looping, and finally finishing up by traveling sideways. However, only slight damage was caused to the starboard tip fin skid.

At no time did the sailplane attempt to leave the ground due to one or both of the following reasons. With the pilot sitting in the cockpit the angle of attack of the wings appears to be negative, so the tendency, as the aircraft moves forward, is to press itself further into the ground, thereby increasing the drag of the skid. Aiding and abetting this negative angle is the twin tow attachment position which is about a foot above and four inches forward of the CG.

We are assured that remedial treatment will be given those two faults and it is expected that the next tests will be conducted about the 3rd of July.

Schweizer 1-26

Schweizer Aircraft Company announces that a new 1-26 is under construction to incorporate various improvements and simplifications such as flush riveting, a new wing-fuselage intersection for easier construction, improved canopy etc. They plan to have one at the Nationals. Orders now on hand will consume the balance of this year. Those who want 1-26's for Spring 1955 should order immediately.