

BRIEGLEB'S NEW BG-12 TEST FLOWN

By JACK WOLFE

Gus Briegleb's newest creation, the BG-12, was test flown Saturday, March 31st at El Mirage Field. To say that it more than fulfilled expectations would be an understatement. Two short auto-tows were made and then the PT-23 tow-plane was brought into action, with John Lake flying it and with me in the rear cockpit surrounded by camera equipment.

With Gus Briegleb at the controls the BG-12 was towed to 4000 ft. While on tow he made passes all around the slip-stream as well as through it, and experienced no difficulty. After release Gus made a series of increasingly steeper turns, then some stalls, and then pulled alongside the tow-plane with both hands on top of his head! A few more passes near the tow-plane for the photographer completed the flight.

Gus' broad smile upon landing told the whole story. He was happy!

Meanwhile, Paul Bikle had arrived on the scene and gladly accepted Gus' invitation to make the next flight. A few more flights completed activities for that day.

The next Sunday, before Bikle arrived with his carefully calibrated 1-23, Ross Briegleb, Jose Telez and Hank Stockham each flew the ship. Paul first made a comparison run with his standard 1-23 but, after landing, installed his extended wingtips to give him the performance which he required to compete with this newcomer. The next comparison runs, with Gus in the BG-12 and Bikle in his increased-span 1-23 were . . . but here, let Bikle tell the story himself.

"Gus made the first flight in his new pride and joy on March 31 and I made the second and third flights the same day. Since then we have made four flights to obtain comparative performance data using my 1-23 as a reference. The following comments pertain to my observation while flying the BG-12 and while flying the 1-23 with it for comparative performance tests.

"The visibility from the cockpit is excellent and much better than the 1-23. The pilot sits in a semi-reclin-

ing attitude which is quite comfortable although I personally prefer to sit straight. The cockpit is not as wide as in the 1-23; it is the same width as the BG-7. In flight, the controls are light.

"Longitudinal stability is good although it is masked by an out-of-trim condition which requires considerable push on the stick at speeds above 55 m.p.h. Gus will change the stabilizer angle to correct this. The elevator



The prototype BG-12 on its second flight with Paul Bikle on board. He apparently is enthused about it — he will be flying it at the 23rd Annual Championships this year.

control is just about right; the rudder forces are light; and the aileron control is adequate but not as powerful as I am used to on the 1-23. Gus intends to increase the aileron deflection to improve the aileron power.

"Trailing edge flaps are used for low speed soaring and, when deflected beyond 10° to as much as 60 degrees, act as very powerful speed brakes. Only 45° flap deflection was required to fly with the 1-23 using full double spoilers at 65 m. p. h. Little trim change was apparent as the flaps were used and they were very effective for glide path control on landing. I was very much impressed with this feature of the BG-12.

"A number of stalls have been made with little apparent tendency to roll off. However, complete stall and spin tests have not been made at this time. The stall speed is 39 m.p.h.

with 0° flaps and 37 m.p.h. with 10° flaps, as determined from the calibrated airspeed on my 1-23 which was flying in formation during the stalls. The stall speed on the 1-23 was 34 m.p.h. Both ships weighed 650 lbs. The uncertainty of these speed measurements is about ± 2 m.p.h. but the differences in stalling speed are accurate to ± 1 m.p.h.

"In general the handling characteristics are very satisfactory although there are a few areas which need some further work. Everything considered, the ship does very well and there are remarkably few bugs to be worked out, which is unusual for a ship as new as this.

"The performance is better than would be expected, particularly when you consider that this prototype has a stretched out BG-7 fuselage and tail (struts, too, on the tail). We meas-

ured sink with relation to the 1-23 at speeds of 45, 65 and 85 m.p.h. Each point was held for 5 minutes and repeated four times. The difference in sinking speed was 18 ft./min. at 45 m.p.h. and 12 ft./min. at 65 m.p.h., the BG-12 sinking slower than the 1-23 in each case. At 85 m.p.h. the BG-12 sinking speed was greater than the sinking speed of the 1-23 by about 10 ft./min. The performance of the BG-12 was better than the 1-23 at all speeds from 41 m.p.h. to 75 m.p.h. This difference in sinking speed translates to a maximum L/D of 32 and a minimum sinking speed of 2.1 ft./sec. as compared to an L/D of 28 and a minimum of, perhaps, 2.4 ft./sec. for the 1-23. The 1-23 configuration used as a reference is that of my modification 1-23 with 1-23D wing tips, small wheel, balance weights removed, and all gaps and