

About Those Ailerons

By the numbers, the two aircraft I was flying were very different—and not just for the lack of a powerplant in the glider. Wingspan is a fundamental difference that took a good deal of practice to get used to. The greater wing dimensions of the Blanik make the roll rate dramatically slower and heavier. Because the powered aircraft is nearly three times heavier than the glider, I expected the glider to be more maneuverable, but a look at the aspect ratio tells us why that can't be.

When banking, the longer wing of the glider, with its higher aspect ratio, will roll the fuselage more slowly since there is greater distance between the aileron and the fuselage. You need a more dramatic deflection of the stick to make a turn.

Once a turn is started (assuming a medium bank turn) pressure needs to come off the stick. But medium banks are not the norm in glider flying: once you learn about centering thermals, you bank steeply to stay within a column of rising air.

Adverse yaw, created by the increase of drag on the aileron of the raised wing, needs to be counteracted with more pronounced use of rudder pressure. With a steeper banked turn and more difference between the speed of the raised and lowered wings, considerable opposite aileron will be used to keep the bank constant. With practice, and reference to the yaw string—a skid/slip indicator made of yarn taped to the windscreen—turning a long, lumbering wing can become a graceful event.



LET L23 SUPER BLANIK

53-foot wing span, wing area 206 square feet, aspect ratio 13.7



PA-24-250 COMANCHE

36-foot wing span, wing area 178 square feet, aspect ratio 7.3