This article is reprinted from Silent Flyer, August 2000.

Much has been said about trimming a sailplane for maximum performance. Most of the advice is accurate, but don't be "penny wise and pound foolish." Most of the performance gains made by trimming involve moving the CG aft to where the plane flies where it is pointed (it won't pull out of a dive on its own — neutral pitch stability). the decalage angle (angle between the wing and the stab) is reduced, the stab down-load is reduced and drag is reduced. The drag reduction. however. is usually less than 1 percent (5 seconds of duration on a 10 minute flight) and not worth the difficulty in flying a neutrally stable plane.

Slope racers and F3B pilots (multi-task and speed runs) will fly aft CG positions so the plane will fly where it's pointed. You don't want the plane to balloon when rolling out of pylon turns. Fighting a ballooning tendency will lead to rough flying and this increases drag and leads to slower lap time. An aft CG also increases pitch response for a given amount of control surface deflection, also good for the pylon turns. Aft CG means you'll also have to "fly" the plane more, which means you'll also have to see it. For our thermal duration contests, downhill at the limit of your eyesight, you want an easy-to-fly sailplane. Rough flying caused by a too-aft CG. with its erratic angle of attack control and frequent control surface deflections will kill performance — much more than you can hope to gain from reduced stab drag.

Likewise, a good landing is the result of a good, stable approach. It may be difficult to fly a smooth approach with a touchy plane. Also, it may be difficult to program the flap to elevator compensation with a sensitive stabilator caused by an aft CG. Remember, trim your plane for max points on the scorecard. not necessarily max performance.