

Skill Managing the Aircraft

Last year, I suggested that every gliding library should include a copy of *Competing in Gliders* by Leo and Ricky Briigliadori. After reading the book twice, I think it is an absolute must-have for any competitive soaring pilot. As with most good books, there's a certain amount of "how to," but even better, Leo and Ricky leave many doors open, inviting experienced pilots to take their thoughts and observations and grow them. The Briigliadoris cite 8 required skills for a competition pilot. From March through October, I'll use this column to briefly explore each of them.

#1. Skill Managing the Aircraft

Let's start at the beginning: basic airmanship. To pass your private pilot practical exam, you must demonstrate the ability to safely operate a sailplane in calm to moderate conditions in the vicinity of an airport – hardly sufficient preparation for competitive cross-country soaring. The SSA and FAI manage an awards program based on cross-country goals to provide pilots with a path to greater proficiency. In the past, the minimum level of skill required to compete was completion of gold distance.

Even so, the transition from solo cross-country to racing with a crowd is a dramatic one. A triple diamond pilot with an FAI 1,000 km diploma may still lack piloting skills useful in competition. Fortunately, it's a rarity to find a successful competition pilot with questionable basic skills. (Judgment, of course, is another thing altogether!) The demands of competitive flight quickly cull the ranks of pilots – who, recognizing their deficiencies, either address them (and become increasingly competitive) or opt out of the environment (to focus on other aspects of the sport).

Superlative basic airmanship is a prerequisite for any pilot wanting to compete. Without mastery of the basic skills, a pilot does not have the foundation upon which to develop the specialized tactical, strategic, and psychological capabilities required to maximize personal performance. (See Reichman's *Cross Country Soaring* for a discussion of these skills and thirty specific training tasks to increase proficiency.) Nor can a pilot fly with the confidence needed to take best advantage of the conditions. The ability to exploit all known sources of lift cannot be understated. I have seen pilots land out on the very best of ridge days because they were unwilling to fly close to the mountain. These pilots lacked the skills needed to confidently manage the risk of flying within several wingspans of the ground. Happily, for most pilots, skill, confidence, and improved safety come with practice.

The biggest single difference between solo cross-country and competition can be summed up in a word: *weather*. Pilots seldom chase badges on marginal soaring days. Contests, on the other hand, are typically decided on days better suited to golf or gardening. When lift averages 2 knots or less in the blue, the pilot who can core a thermal in a single turn and remain there with an absolute minimum of control usage will excel. The same pilot will also gain advantage over competitors by extending his glides to the bottom of the height band, able to find, center, and climb in thermals from altitudes down to 1,000 feet above the ground. This pilot is able to balance confidence in consistently saving the flight with confidence in the ability to land safely if the lift fails.

By fully mastering the controls, a pilot can significantly improve his or her exposure to risk, especially when flying in weak, low conditions or crossing terrain with few suitable landing options. In fact, through such mastery, hitherto unlandable terrain may present very reasonable landing options. Karl Striedieck successfully landed his ASW-15 on a coal heap on the bank of river at the end of a Smirnoff Derby flight. An extreme example, it nonetheless demonstrates the options available to a confident, capable pilot.

Anytime we fly we expose ourselves to risk. And while some may differ, I believe the vast majority of pilots share the same risk tolerance. I know very few people willing to sacrifice glider, limb, or life for a few extra points or the sporadic applause of a very small audience. There is, however, a vast chasm between pilots' perceptions of risks they take versus the risks they see others taking. We judge others based on our own abilities to manage an aircraft. So when we see or hear of someone else doing something we wouldn't, we simply assume that the offending pilot has taken unreasonable risks. Yet we are all willing to admit that some pilots are more skilled, more experienced, more talented, and therefore better equipped to practice maneuvers we ourselves wouldn't attempt. Skill is a continuum, from your practical private pilot flight test, through silver, gold, and diamond badges, to regional competitions, to the nationals and even the worlds. For most of us, risk tolerance remains stable. Skill, however, changes what were once unacceptable risks (ridge flying, thermalling in large gaggles, landing in short fields) to acceptable practices, exposing you to no more risk than a fledgling pilot's first cross-country flights. And if we aren't willing to mark those first few sojourns as an acceptable risk, we've no business in the air to begin with.

Skill Managing the Aircraft is shorthand for our abilities as pilots to maintain mastery of both the aircraft and the tactical choices we make throughout a cross-country flight. The difference among us is the depth of resources we can plumb in the cockpit to remain safe – in turn letting our understanding of our own capabilities inform our choices. There's no mystery in developing our capabilities. Reichman and Briigliadori, among others, have given us the tools – we need only decide to improve our skills to open up new opportunities for performance.