Three counter-intuitive solutions to general aviation problems.

General aviation has a lot of good things going for it. Airplanes have gotten more capable, and wonderful avionics improvements have come along to give us amazing inflight information and make flying much more fun. But these good things tend to be overshadowed by a particularly large dark cloud. In an increasingly risk-averse and litigious society the general aviation accident rate is unacceptable. In fact, the fatality rate per mile for airplanes is 7 to 8 times that of cars and the rate hasn’t changed significantly in the last 10 years.

It is not like we don’t know about this and aren’t trying hard to fix it. We have tried all the obvious things and have redoubled our efforts to work harder at them. We’ve had magazine articles, symposia, and courses dealing with the subject, but still little, if any, change. It is becoming apparent that trying harder at the obvious answers won’t work. As for most complicated problems, the solutions won’t be obvious until after the problem is solved.

So here are three suggested not-so-obvious and counter-intuitive solutions to the problem.

Solution #1. We should quit talking about safety.

Most of the times we use the words “safe” or “safety” we don’t really mean them. According to Dictionary.com, the word “safe” means “secure from liability to harm, injury, danger, or risk”; and “safety” means “the state of being safe; freedom from the occurrence or risk of injury, danger, or loss”.

It is clear that in the dictionary sense, you can’t fly an airplane, or for that matter drive a car, and be “safe”. Everything we do in motorized vehicles involves tradeoffs with safety.

So when we say things like “Safety is our number one priority” or “We will not compromise on safety”, they cannot literally be true. All of this platitudinous talk about safety is not only disingenuous hypocrisy; it is bad management, because we are setting unachievable goals. Telling someone to have a “safe” trip is a nice, courteous expression of good will, but it is lousy professional advice. It is literally impossible, and gives no advice that can be acted on. More helpful would be a suggestion to “manage your risks well”.

Solution #2. Abandon talk about teaching pilots “judgment” and “decision-making”.

The reason I think these terms are not useful is that I don’t think they are acceptable to the recipient, and therefore not likely to produce good results. Aviation tends to attract competent, achieving individuals who naturally believe they already employ good judgment and decision-making. They are unlikely to pay heed to an (often younger) instructor who tells them they will teach them these things. Much more acceptable would be a discussion of the special risks associated with the activity called “flying” and strategies to manage those risks. Additionally, the term “decision-making” tends to imply that you get to a fork in the road and make a decision. Risk management implies employing a strategy to proactively anticipate the need for a decision before you are in the situation. The latter approach is much better.

Solution #3. Improve our stall/spin accident problem by teaching pilots to fly slower.
Year after year a big chunk of all general aviation fatalities have been due to stall/spin accidents. So everybody would assume that these accidents are caused by a lack of slow-flight awareness, and the way to solve the problem is to drill students on slow flight and stall/spin awareness. I believe everybody would be wrong.

Let’s consider that these accidents may be caused instead by flying too fast. An imminent stall caused by flying too slow is easy to recognize. The controls get mushy. The air noise decreases. The airplane buffets well in advance. It is certain that most stall/spin accidents don’t happen at one G. There is just too much warning.

On the other hand, a stall caused by an increase in load factor gives much less warning. The controls aren’t mushy. The air noise is still at the usual level. The buffet gives little if any warning.

Many pilots fly faster than they should because their instructors taught them to. Flight instructors are afraid their students will stall. Therefore they have them fly faster when maneuvering, especially in the pattern. Since the radius of turn increases with the square of the speed, the result is huge patterns, or steeper banks and more load factor as pilots try to stay closer to the runway. Throw in a skidding turn and it’s a set-up for a fatal accident. So instead of focusing on making pilots slow-flight aware, we should have them be load-factor aware and suggest they fly slow when it is beneficial.

So let’s apply these solutions and think out of the box to find other counter-intuitive solutions to our aviation fatality problem. It is the most important thing we can do to preserve general aviation.