



3,2,1, Done

By Tom Johnson

The Soaring Safety Foundation is a strong advocate of the Hard Deck.

In case you are not familiar with the term, the Hard Deck is your personal Above Ground Level (AGL) altitude below which you do not thermal. The idea is that below this altitude, you do not have enough time to recognize and recover from an inadvertent stall or departure from controlled flight.

You determine this altitude, not in the cockpit, but sitting at home watching Matlock and sipping a cup of coffee. You factor in your particular sailplane, proficiency, terrain, and other factors you deem appropriate. You then come up with an altitude that you etch in stone and make absolute. Personally for me in my Mini-Nimbus, the minimum thermalling altitude is 700 ft AGL.

Once you hit the minimum thermalling altitude, the soaring is over and the landing begins.

The concept of the Hard Deck comes from tactical aviation. Experience taught those folks that trying to train below a certain altitude began producing negative results. So it is with soaring. The concept of the low-altitude save, and its place in soaring folklore, needs to go away.

I have been accused of wanting to take the “fun” out of soaring by discouraging low-altitude saves. I have been told that having minimum altitudes on racing tasks would be “unworkable”. I have been told that placing altitude minimums on badge flights would be “impossible” to differentiate between ridge, thermal, and wave.

I did not really know how to respond, until I went to my first aerobatic contest. Each category of competition, Primary, Sportsman, Intermediate, Advanced, and Unlimited have a minimum altitude. The minimum altitude is in the rules and pilots know it is there. The minimum altitude is enforced by the judges who, if in their opinion think you were low, you were low and get a zero for your sequence.

I watched it happen at a recent contest. The contestants who were judged low did not like it, but they accepted it as part of the contest. It did not take away from the “fun” of the contest at all. The judgement was fair, because you really could see that they were below the minimum. And most importantly, the contestant accepted the judgement with a simple realization that they had to change their flying in order to score well.

The bottom line for the aerobatic community is that contests are VERY safe. My observation is that the rules are strictly and fairly enforced, and the contestants have accepted these limitations and work around them.

We could do the same thing in our community.

A good place to start would be with “The Sorenson Doctrine”<sup>1</sup>.

The Sorenson Doctrine is simple. 3-2-1-Done.

Above 3000 ft AGL, I am aggressively soaring cross-country. (3)

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1 Ken Sorenson describe this method to the author in a private conversation





Between 2000-3000 ft AGL, I am soaring cross-country, but I have identified possible landing areas. (2)

Between 1000-2000 ft AGL, I am trying to stay aloft and gain altitude and I have a definite landing site selected. (1)

Below 1000 ft AGL, I am in the landing pattern to the selected site. (Done)

Simple.

Simple only if you have accepted the idea of the Hard Deck. Because once you accept it, the decision to land out becomes much simpler and easier to accept.

And as a novice competition pilot, it made a lot of my decisions easy out on the task. I was able to concentrate on the task because the critical land-out decision had already been made.

And you have to be disciplined in your flying. Do not allow your Hard Deck to creep down. Do not allow circumstances to lead you away from a decision you have already made. Many aviation accidents have occurred because the pilots changed their minds about a reasonable decision once it was too late.

So this is my call to you'all. If you are in a contest, bring up the Hard Deck and the Sorenson Doctrine at the pilot meetings. If you are helping someone with a Badge flight, bring it up. Bring the subject up whenever it seems appropriate. Help as many as possible understand the concept and importance of the Hard Deck.

Finally, the soaring community has a large group of incredibly talented and highly intelligent people. Please do not tell me that working the Hard Deck or Sorenson Doctrine into racing and badge flying is unworkable or impossible. The racing community moved from low altitude contest finishes to a remote finish cylinder with a minimum altitude, and the contest seem just as competitive and fun.

I challenge the community to come up with a way to incorporate this concept into our cross-country mind-set.

In the immortal words of Crash Davis, "Bring it, Meat, show me what you got".

