



SOARING Rx

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Desire, Reality, Safety

FAR 61.53 Prohibition on operations during medical deficiency.

(b) Operations that do not require a medical certificate. For operations provided for in Section 61.23(b) of this part ["Operations not requiring a medical certificate"], a person shall not act as pilot in command, or in any other capacity as a required pilot flight crew member, *while that person knows or has reason to know of any medical condition that would make the person unable to operate the aircraft in a safe manner.*

Sam was the greatest of soaring pilots. He was skilled and daring. He seemed to understand every nuance of the air; he anticipated and responded to its burbles and currents. He could soar when no one else could stay up. He never rubbed this in; he simply took his turn in line, released from tow, and quietly returned hours later.

He grew old, as we all must do. He stayed lean and fit, but – as happens to us old guys, the elastic parts got stiff; and the stiff parts got floppy, and his body didn't always do just what he wanted it to. Nevertheless, it worked well enough – he was still the master of the sky.

One day, while just doing his normal things, he felt strange, a bit dizzy, though the world didn't spin – he was slightly weak, or faint; he felt light. He stopped and took internal inventory. There was a strange discomfort in his left arm. That evening, over supper, he told the Marital Supervisor about this, who said, "That could be your heart! You should see your cardiologist!"

Somewhat against his better judgment – after all, he was feeling just fine – and to steer clear of judgmental remarks at supper, the next day he made an appointment with his cardiologist for the next Thursday.

Meanwhile, he felt fine. He ambled around, he flew his glider, he ate his usual food, and he slept well. The appointment rolled around. He felt a little sheepish about seeing the doctor over something so brief and inconsequential. However, the cardiologist said, "Let's see what an EKG looks like."

Sam trudged off to a little room where a kind young woman stuck little cold patches on his arms and legs and across his chest, hooked up a cluster of wires. She sent him back with a sheet

of squiggly marked paper tucked into a folder. When the cardiologist looked at it, Sam was a little surprised, that he picked up the phone and told someone he wanted a "stress test" right away. "Why?" Sam asked.

"There's a little irregularity in your heart rhythm," he said.¹ "That spell you had was probably some stress in your heart. Let's see how it handles exercise. We'll monitor your blood pressure and EKG, and we'll look at the motion of your heart before and after the exercise to see how it's affected."

Sam's heart sank – his day was shot. He phoned the club to say that he wouldn't be at the airport today, he called the Marital Supervisor to say that they were going to do some tests, but he'd be home for supper; and then he read stale magazines in the waiting room until it was time for the stress test.

The test was hard – his legs got rubbery, he was short of breath and sweaty – and that mild discomfort showed up in his arm. However, afterward he quickly felt fine. The cardiologist, afterward, said, "You have an abnormality, probably on the front side of your heart. I think we should do an angiogram and see whether there's a constriction to blood flow that needs to be opened up."²

"When? I'm pretty busy. Can I wait?"

"I wouldn't wait too long – not more than a week or two."

"I'll check our commitments with my wife and get back to you."

"We can't set up something now?"

"No, I'll call."

"All right." Here's my card. And here's a

prescription for nitro. Anytime you have that arm discomfort, take one. Just slip it under your tongue, give it five minutes. If 2 or 3 don't take it away, dial 9-1-1."

Sam kept that thought alive. There was so much to do, and he never pushed himself as hard as they pushed him during the stress test. He would take it easy, get through next week. The club was hosting a soaring contest, and he really wanted to be there for it.

And he did, in fact, do fine. He filled the prescription for Nitroquick™ but didn't need it. He ambled around at home and at the airfield and enjoyed the people and the preparations for the contest. He flew his glider pleasurably, as always.

On Wednesday morning, they were busy with contest prep; someone said, "Who's going to be sniffer today?" Sam said, "I will." He towed up. He released, and they watched him fly around. After about ten minutes, someone said, "Well, he's staying up." They watched for two or three more minutes. Then he suddenly climbed abruptly – and nosed over into a steep dive, and disappeared into the woods.

That pretty much changed everyone's focus. They found the glider about two miles away. When they got to the glider, parts of both wings and the empennage were broken from the fuselage by its impact with trees and terrain. Each wing had hit a small tree. Sam was dead.³ His bottle of nitro was with him, still unopened. The debris spread over an area almost 200 ft long.

Will this be you? More than half of us will die of cardiovascular disease; about 8% will die abruptly. Few of us would fly if we felt sick. *Sam felt fine.* If your own cardiologist had told you, after a stress test, that you should have an angiogram – would you translate this, given that you felt mostly fine, into a decision not to fly?

I doubt that Sam's cardiologist laid out explicitly his increased risk of sudden death – none of us docs like to create panic; each of us has done it accidentally, often enough. How could Sam – or you – realize that there is a real risk of sudden death in the airplane? No one can actually predict this, anyway – all we can say is that there is an increased risk of sudden death in ischemic heart disease. Neither Sam nor his cardiologist could have known this was going to happen. I

expect that the cardiologist knew, but did not tell Sam, simply because that's how they do it in my neck of the woods: generalities, no specifics.

On the other hand, the pilots I've talked to about this sort of thing tend to say, "If there's a question, I won't fly." Which translates to, "If my cardiologist wants to do a heart cath, I can assume that my heart is more important than flying."

My point is that *Sam felt fine* after his little spell. The reason we should not fly with not-yet-defined heart disease, with a hanging kidney stone, or with a hernia in our scrotum, or while taking medication that affects the brain is that sometimes these things bite us without additional warning.

We pilots are required *by regulation* to use good judgment at all times regarding whether our present health interferes with safety. When we fly with any medical deficiency, we are acting *illegally* as well as irresponsibly. This means that the FAA could fine us or take action against our certificate even if no harm is done. It magnifies our exposure to financial disarray if damage is done: does your aircraft or personal liability cover if you are in violation? It magnifies the social shame for the pilot and for the profession of which he's a part. It prejudices, perhaps fairly, tort proceedings.

For example, a neurosurgeon lost control in IMC and crashed into houses in New Jersey, causing death and destruction. He *should have known* that the barbiturate-laced migraine drug he had recently taken was illegal. It does not matter that it may not actually have caused the accident; having taken it recently meant that all flight was illegal for him.

In the same way, if you, or I, fly an aircraft while having *reason* to know of a personal medical condition that would make us unable to operate the aircraft in a safe manner, we are flying illegally.

You or I may feel that our mild or imperceptible defect may be safe to fly with, that incapacitation is *unlikely*. However, if we have an incident, then our judgment is instantly proved wrong. As the black humor goes, "It seemed like a good idea at the time."

Who is responsible for policing this? Remember, when we point one finger at someone else, we are pointing three at ourselves.

Who is responsible?

I have fictionalized this story: I don't want to analyze the pilot who was Sam, or to focus on him – I want *you* to be the focus, or your buddy at the airport who's not quite himself. We don't need to analyze this incident; we need to use it to ask, "When will I be Sam?" Let's review some of the factors that contribute to the decision to fly:

Principles of Accountability

Principle #1: Autonomy: we each need to take part in decisions for which we bear the consequences.

This means that the doctor cannot force the patient, but must teach and lead. This process is fraught with risk, as anyone who's been married knows.

In some ways, Sam's death was not a tragedy. He was old; he'd had a wonderful life doing things he loved; he died suddenly and painlessly while experiencing great pleasure. If his life had not ended in this way, it would have ended in another way. We each fear being incapacitated; we all know that our medical technology is very successful at keeping the decrepit elderly alive, zombified in institutions, for up to a decade, at enormous cost. Sam would have regretted such an existence as a greater tragedy, I'm sure.

Principle #2: Expertise: we need to look for, and respond appropriately to, the differences among ourselves in knowledge, experience, and wisdom.

We experts have a responsibility to teach; and each of us needs to realize we're more ignorant than we feel, and to ponder advice we're offered, especially unsolicited advice – for that often means we're about to stumble, though not necessarily in the way it seems.⁴ This might mean asking that extra question of our doctor: "Could this condition cause unexpected trouble at 10,000 feet when I'm flying airplane?" (I can guarantee that this question is not at the top of his mind.) It might mean simply talking out the decision with our friends – who actually care whether we are alive tomorrow; and if they're not really our friends, they at least don't want to see an airplane destroyed or Aunt Martha's house collapsed.

Principle #3: I *am*, to a reasonable extent, my brother's keeper. I should not put another person in danger, and should warn those who are.



Unfortunately, this exposes us to Great Unhappiness and Personal Rejection, both of which hurt, when we advise a fellow pilot against operating the controls of an aircraft. At the same time, we feel terribly when we see poor performance or judgment, say nothing, and plane or pilot is dinged.

Principle #4: *We cannot see the future* (yet we are responsible for the past). The windscreen is murky, the rearview mirror is clear.

Sam's cardiologist would have known that his sudden-death risk is increased (5%? 8%? – per year), but sudden death is, in fact, unpredictable. He would have prescribed medications to reduce this risk.

We imagine that medical treatment is free of bad effects, but this is not true. Sam needed bypass surgery, not angioplasty; at 85, there is a high risk of stroke, of pneumonia, of graft failure; and there are many other risks of surgery. Full recovery from bypass surgery, my elderly patients tell me, is about a year when things go well. We cannot assume that Sam's life would have been rosy.

The action of last resort. If a pilot clearly is at risk for accident, we can use the government. Because FAR 61.53 prohibits

pilots from flying or co-flying an aircraft with a disabling medical condition, it is possible to make a report to the NTSB or the FAA about a pilot that transgresses this rule. An investigation *will* occur (which should include asking whether the report was made in good faith). Therefore, if there's a pilot on the field who simply won't listen to reason, we do have a friend at the FSDO, who will take up the cause. (E.g., "As a club, we have reason to believe that Jeb McGlurk flew on 6/12 in violation of 61.53. Here's what we do know.")

We do need to talk to each other, to question each other gently about defi-

ciency. "Are you sure you're OK to take this flight?" "If I was in your condition, would you fly with me?" "Can I fly with you?" are expressions of warm personal interest and concern that respect the other's autonomy, and do not condemn.

We could add another item at the top of each checklist, item zero: The Pilot. This is how a top-level checklist should be:

- 2 - Aircraft
- 1 - Environment
(in the broadest sense)
- 0 - Pilot

If any of these presents significant risk, then we really should defer flight. ➤

– Footnotes –

¹ For the cognoscenti, the EKG showed frequent ventricular premature contractions and occasional supraventricular ectopy, including two runs of non-sustained supraventricular tachycardia.

² For the cognoscenti, the echocardiogram showed stress induced wall motion abnormalities suggestive of ischemia, suspicious for proximal LAD stenosis the cardiologist wanted to schedule left heart catheterization and possibly angioplasty in the next 1 to 2 weeks.

³ The cause of death was determined by autopsy to be blunt force injuries, not cardiac arrest. This also showed that, "Coronary arterial system has varying degrees of calcific atherosclerosis; the left anterior descending coronary artery has up to 90% stenosis, the circumflex coronary artery has up to 80% stenosis and the right coronary has up to 80% stenosis." (These are severe, and would have warranted triple-bypass surgery.)

⁴ A friend, a writer, says about his draft-mss readers, "They're always wrong about *what's* wrong, but they're always right that *something's* wrong."