Above the Bar

"Mother Nature is under no obligation to set us challenges meeting regulatory standards." A world-leading authority on reducing human error in aviation says surviving the extraordinary begins with exceeding the ordinary.

S tandards set by aviation safety regulators around the world are the *minimum* required for safety – they'll get you through everyday activities.

But for skills needed to cope well with a crisis, pilots and operators need to work, every day, way above those minimums.

That's the belief of a former United States Air Force command pilot, and expert on human performance in high-risk environments, Tony Kern.

Dr Kern, who is a founding partner and chief executive officer of Colorado Springs-based Convergent Performance, thinks regulators have safety standards about right.

"If they set them higher," says Dr Kern, "we wouldn't have many pilots left. You cannot regulate against all the challenges that an aviator may someday have to respond to.

"The point is, though, that if you're a professional aviator, or operator, you set your own standards, and they are always above the minimums."

And the reason for this, he says, is because when that almost inevitable crisis occurs, someone used to chugging along at the minimum level of skill and safety will likely be incapable of meeting the challenge. They simply won't know what to do, in the time they'll have to do it.

"You hope someone's survival instinct will kick in and get them through," says Marc Brogan, CAA Aviation Examiner, "even if they're not that skilled. But I hate to think of a checklist coming out during an emergency when the response should be automatic – almost a motor response."

Marc says 2014 research carried out by CAA specialists identified a link between accidents during dual instruction flights, and the way the instructors involved in those flights had, themselves, been taught to fly.

Marc says there were common themes.

"Many took multiple attempts to pass tests, they learned to fly with organisations with a history of marginal student results, there was an apparent lack of supervision of those instructors when they were students, and an apparent lack of supervision of their instructors. There was, seemingly, a lack of mentoring and upskilling of those instructors, and the training appeared fragmented, with lessons in an illogical sequence, rather than one built on the one before it."

In other words, those instructors who'd, as students, learned to fly with organisations and instructors who just 'chinned the bar', themselves only 'chinned the bar'. And they were the ones disproportionately involved in the dual instruction accidents.

"Someone's performance almost always peaks on exam day," Marc says. "We know that it drops away when the test is over. It's human nature."

Jeremy Anderson, the Chief Flying Instructor at Nelson Aviation College, agrees that success in aviation is not about passing an exam. It's about learning to fly well.

"I think it's the flying instructor's job – and for that matter the organisation's job – to decide if a candidate is good enough to hold a licence. The Flight Examiner gets to see only a snapshot of the student's ability on the day. It shouldn't be whether the candidate is going to pass or not – that should almost be a given – it should be a matter of how well they will pass.

"A candidate should never be put up for a flight test if the instructor knows they're not safe and don't meet the standard. For one, it's a waste of time and money, but more importantly, what if this unsafe, 'below the bar' pilot just wings it and actually passes on the day?"

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Jeremy says there's a big difference between knowledge and understanding. Somebody knowing the correct answer, he says, does not mean they understand it.

"Not much frustrates me more than a student pilot reciting the correct answer but when asked 'why?', not only do they not know, but they also appear to not really care. I think that is the bigger issue."

Jeremy says wider industry has a responsibility as well.

"It's easy to blame the flying schools for a lack of knowledge and/or experience, but I think it's important to remember that the newly qualified CPL holder is not going to be able to just get in and go.

"The good operators realise that, and they have ongoing training programmes that extend the pilot beyond the minimum.

"Why not do a competency check every three or six months instead of annually?" he poses.

Marc Brogan says quite often, people don't know they're only mediocre.

"You don't know what you don't know. But all pilots, including instructors, should be constantly upskilling, no matter where they think their current ability lies.

"They can ask for regular check rides, or do revision, or some dual instruction."

Marc Brogan says there's a duty of care to the people being carried in the aircraft that goes way beyond passing an exam.

"I've seen pilots – who've performed 'okay' the day of their check – preparing to take off into really iffy weather, with the passengers in the back looking terrified."

Marc says he encourages such pilots to lift their game.

Tony Kern agrees, saying aviators should continually "evolve their performance toward higher levels of precision.

"It actually improves their habit pattern, and their recognition of what to do, as deviations occur.

"There is life and death beyond the minimum standards. Too often we see pilots trained to those standards, but still fail in an emergency that demands more of their ability.

"Actually, there's fun above the bar. Once you're performing at the highest level you can perform, you really enjoy what you're doing."

