"Experience" is a Delusion That's Holding Back Aviation

By Steven Shaw
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I started building flight training systems in 2011 when I was still a student in Navy Advanced Jet Training. Throughout my subsequent career flying and instructing in the F/A-18, I developed tools and methods to help pilots achieve a level of performance that far surpassed what their flight hours would suggest. My entire focus was on finding ways to accelerate the accumulation of "experience."

But the more I worked on this pursuit, the more I realized that what we're really talking about when we say "experience" is skill—specific, measurable, and perishable abilities. The focus of my work began to shift from the vague concept of "experience" to the concrete reality of skill.

Now, after more than a decade, I find myself unable to even define what "experience" means as it relates to a pilot's ability. The word is used as a stand-in for everything—time, seniority, decision-making, wisdom, and employability—often all at once. And when a word comes to mean everything, it ultimately means nothing.

This isn't just a vocabulary problem. The words we use become the lens through which we assess others and ourselves. Thinking in terms of "experience" creates the wrong mindset about pilot skill, and that mindset quietly and incorrectly shapes everything that follows.

My position now is that pilots should stop using the word "experience" altogether.

A Brief History of Logbooks

At the dawn of aviation, early aviators kept personal diaries and maintenance notes. By around 1912-13, militaries began formalizing logbooks, borrowing their layout directly from maritime tradition: rows and columns tracking date, aircraft, flight time, and other metrics. They modeled them on ship's logs—which recorded speed, course, position, and weather.

During World War I, aviation's reliance on logbooks exploded as they became the foundation for recording raw operational reports, fleet management, and strategic oversight. After the war, civil aviation inherited this military management system wholesale. The Air Commerce Act of 1926 in the U.S. mandated structured pilot and aircraft logbooks, cementing the idea that flight time was legally bound to certification.

The Problem with Logbooks

For new pilots, logbooks carry an almost mythic status. You see your instructor's logbook—thick, worn, and full of entries—and immediately understand it as a symbol of legitimacy. As a student, you start to want one of your own—full pages, long totals, entries that span years. It feels like a trophy case, a source of pride and identity.

But this is where the problem begins. A logbook entry creates the sense that something permanent has been acquired. The flight happened, the number is recorded, and the implication is that whatever was gained in that moment is now possessed forever. It encourages the belief that flight time equates to ability, and that accumulated hours represent accumulated skill.

Over time, aviation culture has only reinforced this belief. Logbooks aren't just seen as records—they're treated as evidence of "experience," and experience has become shorthand for skill, whether people realize it or not. The belief system surrounding "experience" is the more you have, the better you are. This assumption is embedded into certifications, insurance policies, job qualifications, and cockpit authority.

But that assumption is fundamentally flawed.

The System Knows "Experience" Isn't Enough

If "experience" was the reliable measure of skill we pretend it is, the aviation system would trust it more than it does. But no matter how many hours you have, no one will let you rent any aircraft without a checkout flight.

A former squadron mate of mine—a combat-proven F/A-18 pilot, graduate of the Navy's Test Pilot School, and a 777 instructor for FedEx—cannot even rent a Cessna-150 for a weekend flight without a local CFI's approval, and that approval doesn't last forever. This is a pilot trusted to teach international airline operations, oversee advanced weapons testing, and help design the next generation of military fighters. Yet for a hundred-dollar hamburger run, the system demands a demonstration.

Why? Not because he lacks "experience." It's because deep down, the system knows the truth: Skill is aircraft-specific, perishable, and must be demonstrated—not just logged. Our actions betray our words. We say we value "experience," but we only trust demonstrated skill.

The cracks in the "experience" model are everywhere. An Airline Transport Pilot certificate requires 1,500 hours, unless you attended a university aviation program, in which case it's 1,200 hours. If you were a military pilot, it's only 750 hours. So which is it: half the "experience," or twice the skill?

To patch these holes, we invent new phrases: "quality of experience" or "recency of experience." We create words like "currency" and "proficiency" to explain away the simple fact that logged hours are inadequate. We wrap vague words in even vaguer qualifiers to prop up a model that we

all quietly know is broken, because we aren't trying to measure experience—we are trying to measure skill.

What the Word "Experience" Really Means

This is where we break down the difference between *having an experience* and *being experienced*. When we peel back the label, we find the general concept of "experience" is never the substance—it's only the container. What really matters, what's actually developed and demonstrated during any meaningful experience, is skill.

Take a pilot who encounters a generator failure in flight. We say they've "gained experience" from that event, but this simply means they were forced to respond to a set of circumstances. That response was necessarily a collection of specific actions that form the **Five Components of Skill**, a framework detailed in my paper, *"The Right Stuff: Redefining How to Train Pilots."*

They saw failure indications on their instruments—that was **perception**. They had to think through aircraft systems and checklists for the situation—that was **knowledge**. They had to make specific choices about how best to respond—that was **decision-making**. They had to maintain control of a degraded aircraft—that was **physicality**. And they had to make non-standard radio calls to ATC and their crew—that was **communication**.

What we call "experience" is just a bundle of those individual abilities, or components of skill. And not every experience builds them. Some reinforce bad habits. Others happen so fast they teach nothing at all. The only reason an experience is valuable is if it strengthens or builds a skill. Otherwise, it's just an entry in a logbook.

Why Doesn't Aviation Talk Like Sports?

In professional sports, "experience" can be a starting point, but is never the final word. Analysts and coaches speak in specifics and focus on current execution, not just reputation. They'll say a quarterback is "reading the defense quickly," or a point guard is "seeing the court and making smart passes."

Michael Jordan is forever in the conversation about the greatest basketball player of all time, but nobody argues where he ranks in baseball—even though he played professionally. To say a pilot is "highly experienced" is as vague as saying Jordan was "athletic." It's a true but empty statement, because neither "athletic" nor "experienced" has any meaning outside a given domain.

Aviation culture treats experience like a medal you earn and keep forever. Sports culture knows better: skill is perishable. Timing slips, readiness fades, and precision erodes.

Why We Cling to a Flawed Metric

This isn't a trivial question, and the reasons we cling to "experience" aren't entirely irrational. One of the primary reasons is simple convenience: flight time is easy to measure. Logged hours are quantifiable, standard, and scalable. It is far easier to sort pilot applications by flight time than it is to assess actual ability, and data does show a general correlation between hours flown and safer outcomes. On paper, the logic seems sound.

But the system is built on a dangerous assumption: that correlation equals competence.

History reveals the flaw in that logic. The list of accidents involving high-time pilots making basic mistakes is long and tragic. We've seen pilots with tens of thousands of hours fly perfectly good airplanes into the ground—at the wrong speed and attitude. We've seen captains misread instruments, mishandle procedures, or grow complacent, shielded from scrutiny by the authority of their "experience."

The system defaults to hours because it's the only thing it can easily record. But it's blind to what really matters. A logbook cannot show the difference between a thousand hours of challenging, skill-building flight and a thousand repetitions of the same shallow flight profile. It cannot see rust, ego, or stagnation.

Thinking in terms of "experience" cannot distinguish between *time in the air* and *skill forged in the air*.

The Hidden Cost of "Experience"

An experience-based mindset creates a subtle but dangerous form of arrogance that can creep up on an unassuming aviator. It's not the loud, obvious kind, but the quiet, false confidence that whispers, "I've done this before. I'll be fine." It allows us to treat past accomplishments as permanent assets, fixed and forever present.

Skill-based thinking is the antidote. It demands humility. It shifts a pilot's focus from the past to the present. The question is no longer, "Have I done this before?" but rather, "Can I do this right now?"

This is where the danger creeps in. Experience gives pilots permission to believe they'll be okay, and they don't question themselves. That's what makes the mindset so insidious: arrogance wrapped in credibility, confidence disguised as competence.

We all know the script: "I've flown this approach a hundred times." "I've got 3,000 hours. I'm good." A pilot with 10,000 flight hours who dies in a Cessna 172 is just as dead as any other pilot killed in a crash.

A Call to Action: Stop Saying the Word "Experience"

This conversation isn't aimed at the FAA, or ATP minimums, or how insurance companies evaluate risk. It's not about rewriting the regulations.

It's about rewriting the way we think.

The problem starts with our words. The word "experience" is vague—it sounds important, but it doesn't tell us anything meaningful. And when our language is vague, our thinking is vague too. We start making decisions based on accumulated time instead of actual ability, deferring to our logbook entries instead of our current skill level.

This presents us with a fundamental choice in how we view the pilot profession.
- Experience is the story we tell ourselves about what we have done. It feels earned, permanent, and offers comfort.
- Skill is the mirror that shows us what we can do right now. It reflects the unvarnished truth—sharpness or rust, precision or decline.

The experience story lets us hide from the mirror. It allows us to wrap ourselves in the comfort of past achievements. But the mirror demands honesty. This isn't semantics—it's precision. When we stop telling stories and dare to look in the mirror, our standards rise and our training improves.

Pilots don't need more experience. They need more skill.