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FEATURING

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**NO MORE
IMMELMANNS**

AN ESSAY BY LAURENCE GONZALES



No More Immelmans



BY LAURENCE GONZALES, AUTHOR OF DEEP SURVIVAL, FLIGHT 232, ONE ZERO CHARLIE, AND MORE

TOM CRUISE HAS HIS arm around Randy in the photograph. He's grown a beard and left it untrimmed, and he wears sunglasses and a bandana tied around his long hair. Even so, it's impossible to mistake him for anyone else. That smile. Tom is short, but Randy was shorter. Tom is thin. Randy is stocky and wears his dark blue flight suit and a straw hat, and they're both laughing. Not just laughing. They're laughing hard. I know about that laugh. You come down from those flights so pumped up, physically, mentally, mystically. And everybody laughs like that, with the airplane tabernacled in the hangar, still hot, almost a living thing among us. We crack open a few beers like some latter-day fighter squadron of hell-bent irregulars, and inevitably someone says, "Cheated the devil again, eh?" Yes, (that laugh seems to say) we went up and stole something and got away scot-free.

Behind them: Tom's Pitts S2-B. It's a white biplane with red trim in a kind of reverse Marion Cole paint job. We've all seen them at air shows, pulling snap-rolls on takeoff, flying upside down close to the ground, or doing crazy tumbling maneuvers that seem impossible for a craft that demands to be pulled straight through the air nose-first in order to stay aloft at all. Randy taught Tom to fly it. And in an aircraft just like it, he taught me, too. Randy had been my teacher for a year or more when I heard that Cruise had come into the fold. The next year Randy was teaching Harrison Ford to fly his new Christen Husky.

Randy has given aerobatics instruction to Patrick Swayze, Treat Williams, and Tony Bill, the director/producer who won an Academy Award for "The Sting" and directed "My Bodyguard" and "Untamed Heart." Tony and I flew the same Pitts S2-B in competition — N260AB, Randy's plane. Although Randy acquired a small stable of celebrity students, nothing really changed. He had the same little office at Van Nuys Airport just north of Los Angeles. The same clutter. During pre- and post-flight briefings, Randy would sit behind his desk, chain-smoking Marlboros with true pilot style, grinning as if to say, "Yep, I'm on fire, and I don't even mind it." I had come to know his furtive outlaw comportment, those sidelong, surreptitious glances, as he lit his cigarettes with hands cupped, as if to guard against a wind that was no longer blowing. A habit from his barnstorming days of sleeping in the wheat fields. From the first, I could see something in his eyes, a shadow beyond the laugh. I could see that Randy, like me and so many others, was running



Laurence Gonzales

from something. He laughed a lot, and I laughed with him. But each laugh was followed by a stolen look, as if he knew that something was gaining on him. What was it? What was it that Randy was going away from at such a furious clip?

On October 25, 1997, Randy Gagne was killed on an aerobatics training flight with his student, a Southwest Airlines pilot named Heidi Cayouette. They drove straight into the ground at a terminal velocity in excess of 250 miles per hour. You probably didn't read the news of Randy's crash, but you'd certainly hear about it if Tom Cruise or Harrison Ford had punched a hole in the ground. Randy Gagne was the Pied Piper who led those guys out of town.



This must have been early in Tom's training, because Randy put us in the PIC seat (rear) as soon as he felt confident in us.



Randy Gagne and Tom Cruise. Among others, Randy was teaching Tom, Harrison Ford, and me that season.

On any given weekend, I could have been in that cockpit. It wasn't the first time I'd come close. I was on Jim Batterman's schedule for lessons up in Wisconsin when he crashed with a student on board. The student entered a maneuver too fast and folded the wings. My response was to schedule another instructor.

Flying upside down put me in that hypnagogic state of flow I had sought in so many pursuits. It was the hundred-proof cocktail for my nervous system. As soon as I got up there, I knew I had arrived at the place I'd been looking for. Upside down over Texas one day with a notepad strapped to my knee, I wrote, "Here was my dream: a child in a soap bubble, rising into the sun. The high, thin clouds streamed across the sky as if a mysterious, celestial spider weaved its web unseen somewhere beyond the horizon and spewed the tangle of its shiny lanyards out at us as we came, on and on." I was flying a little fighter plane trainer called the T-38, courtesy of the United States Air Force. We all wore these clipboards for writing down our Air Traffic Control clearances, so writing a sentence or two was nothing.

Back home in Illinois, I bought an airplane. I rented a house on Wonder Lake near the little airport in northern Illinois — One Zero Charlie, Galt Airport — where I kept the Citabria so that I could take off at dawn and be doing loops and rolls and spins before breakfast.

Within the year, I'd moved up to the Pitts, a much more vigorous airplane. I never thought, "My wing's going to come off." I flew it hard.

But I loved Randy, and the news of his death sucked the wind out of me. It wasn't even so much that Randy and I were friends. I knew his wife, Sheree, but I had never been to their house. Our life was in the cockpit, in his cluttered little smoke-filled office. In many ways, my



Laurence Gonzales' home field, Galt Airport (10C), where he learned and had most of his adventures that are described in his book One Zero Charlie.

relationship with Randy was deeper than most friendships, because I trusted my life to him every time we met.

We all liked to be *around* him. He filled spaces in our lives that we didn't know we had. When the phone would ring, sometimes he'd bark, "Right rudder!" Pause. "What's the question?" He'd cover the phone and explain to me, "Whatever the question is, the answer is probably right rudder." American airplanes tend to spin to the left. Applying the right rudder causes them to recover. People die because they press the wrong pedal. It never entered my mind that it could happen to me.

We sat in his office and he told me through a cloud of cigarette smoke that he had begun counting in 1981 and found that an average of six pilots a year were getting killed. I started flying aerobatics in 1988 and have found Randy's figures to be accurate. "But a lot of them have just had it stamped on their forehead," and here Randy lifted his fist from the desk to his forehead as if with a rubber stamp, "I Am Going to Die in an Air Crash."

After Randy's death, I called John Morrissey, the coach of the U.S. Aerobic Team (which competes with all other nations for the world championship every two years), and asked him if he thought I ought to quit. He and I had flown together enough that he ought to know. He said, "You have to fly eight times a month to be proficient at this. Otherwise, you're taking an unnecessary risk." Randy flew eight times a week. What happened to him?

Morrissey's wife, Ann Marie, was a fine pilot, a terrific instructor, and a friend of mine. She died inexplicably on a perfectly clear day while giving a lesson in a perfectly good plane. We never learned why. "When Ann Marie went in," John told me, "I thought of 300 people I'd known who had died since I started flying."

I've lost count. Jan Jones and I started at the same time, and she's dead. Flip Phillips. Miles Merritt. Ken Hadden. Rick Massagee. It becomes numbing after a while. It's like being in a gang.

Aerobatics is the most fun I've ever had, but I'm beginning to think that there's more to life than dying in a fiery crash.

I set out to investigate what caused Randy's death. I talked to everyone I could find who might have known anything about it. I thought it might provide me with a logical, scientific underpinning. It's the attitude of all pilots: If I know enough, I can control this. But it's a dangerous illusion. To really know, you have to look into your own heart and make sure you're never, ever going to pull a Ken Hadden.

Just a few days before Randy died, Ken Hadden, an official of the

International Aerobatic Club, the sanctioning body for our contests, took off from a private airstrip in Ohio. His wife was watching as Ken attempted a half Cuban-8 from takeoff. This maneuver involves half a loop followed by half a roll on the descending line. He came over the top heading down at an angle intended to allow him to pull out at the bottom. He pulled the stick to accomplish this. I've done this same maneuver (at a higher altitude), so I know essentially what it would have looked like. At the beginning, his nose was pointing at the sky, and he was hanging upside down in his harness. Looking out, he saw absolute azure blue all around the amniotic bubble of his canopy. With steady pressure, he pulled. The nose dropped. Gravity took over, and he pulled the power back. His view passed through the horizon. Blue met green, and then the earth filled the bubble where Ken sat like a creature attempting to be born. He rolled upright and then pulled harder and harder to recover from his vertical dive to a normal upright flying position. He had intended to go back past the hangars in the opposite direction. The maneuver would have been quite a show for those on the ground if he'd completed it. But earth would submit to him no longer and pulled him in with greedy arms. Ken hit the ground and the plane exploded with the stick still in his hand.

Ken's momentary inspiration cost him his life. That "lonely impulse of delight," which Yeats immortalized in the poem "An Irish Airman Foresees His Death."

Bits of pilot wisdom filter through the years. You lose half your IQ when you climb into an airplane. Takeoff is optional; landing is mandatory. Q: What's a perfect landing? A: One you walk away from.

God help this sport. Much as I love it, I can't say I can go on. There is no memory from my childhood that ever brought me so much pure joy and freedom as flying upside down over the mountains of California, or doing



One of my very few contests was in Clarinda, Iowa. I was never competitive.

Cuban-eights over Wisconsin farm fields in July, or snap-rolling over the Santa Clara Riverbed. And all the while Randy's voice was in my ear. Sometimes when I'd be in a wicked power-on, inverted flat spin — my body jammed up against the canopy by the g-forces, watching the world turn to a nasty brown gumbo of colors — Randy would come on the intercom and say, "For a hundred dollars I'll tell you how to get out of this." And we'd laugh and laugh as we spun our way to the warm green earth. I didn't believe it was possible to crash with Randy's voice in my ear. It never crossed my mind that I might get hurt. When people found out what my sport was, they'd say, "Are you crazy? You've got kids."

And I'd say, "You don't understand." But I was the one who didn't understand.

I flew to Florida with Sheree, Randy's widow, to visit Randy's mother and sister. For many days we all sat and talked and pored over pictures of Randy. We celebrated Randy's life and did not much discuss his death. Sheree is a tall blonde with a British accent who smokes lots of cigarettes and wears oversized tinted glasses. She laughs a lot and is high-spirited and somewhat nervous of demeanor. At one point in the trip she said, "I know how hard this must be for you. I know how much you cared about Randy."

Sheree and I spent one afternoon touring Randy's alma mater, Embry-Riddle Aeronautical University, the top aviation school in the nation. We met with the head of the flight department to see if a grant could be set up to teach aerobatics in Randy's Pitts, whose registration number is N260AB, affectionately known as Alpha Bravo. Peter Pierpont, chairman of the department of technology, agreed that while Embry-Riddle turned out the finest airline pilots in the world, "if they ever got upside down, they wouldn't know what to do." Aerobatics training would help. It might have saved a number of 737s that crashed because a faulty rudder forced them into an inverted attitude.

On another day, Sheree wanted to see Saint Augustine, Florida, and we put the top down and drove up there in the sun. I had finally gotten my nerve up to ask her about the crash. She told me about the night of Randy's crash, when she waited and waited for him to come home for dinner.

"I had some wine. I had some dinner. It was six, then seven, and I was starting to get pissed," she said. "It was just totally out of character for him to be gone like this. Oh, sure, he was always late, but he'd call eventually and have some story." She called the hangar numerous times. She called the cellphone. But she only got Randy's voice. That was all that was left of him.

She watched as much television as she could, and around midnight she drove to the hangar. She found it open. "The Pitts was sitting there and the door was wide open. The truck was parked in the lot," she said. "So I thought, 'Well, he's okay, because there's the airplane. Now where the hell is he?'"

She closed up and went home. Not wanting to be an alarmist, she did not call the people she knew. "I didn't want to be the hysterical wife."

But by morning, she understood what she had been denying all along. She got in touch with Bob Miller, who had the hangar next door to Randy's. Miller told her that Randy had gone out about four o'clock in the afternoon with Heidi, not in the Pitts biplane but in Miller's Extra 300 monoplane.

"Then I knew," Sheree said. She knew everything all at once. The search was on. By about ten in the morning, they had found the Extra stuck in the ground like a dart.

While I was in Florida, I spoke with Clint McHenry. I'll call him Randy's mentor, though McHenry might disagree out of modesty. McHenry is a legend in the world of aerobatics, a former world champion and one of only nine living members of the Aerobatics Hall of Fame. Thin and tall, he sat in his living room overlooking a golf course in a suburb near New Smyrna Beach, Florida, and told me his life story. Since the earliest age, he had wanted nothing more than to fly. And since that time he had wanted to fly aerobatics. He became an airline pilot, so he flew constantly and had an income and security. Clint won every championship there was to win, and now at 76, he had quit. He retired from competition after the 1990 World Cup in Switzerland. By then the Russians and French were dominating the sport, and no American had placed higher than third since the '80s. McHenry said he didn't think he'd fly anymore. "I bought a Pitts, but it just sat in the hangar, so I sold it."

He was no gypsy pilot. He had control and judgment. I could see it in the neatness and order of his home, his car, even his clothing. His leanness bespoke a moderation that told me he had good impulse control. His quitting was a strong testimonial, like that of someone who has tested drug-free for a very long time. For anyone will tell you that flying aerobatics is addictive.

Clint helped Randy leave the gypsy life and get a real job. "I ran the aerobatics school at Pompano," Clint said, "and we were really, really busy." Pompano Air Center was the largest aerobatics training school in the nation. "I told the Beckers [the owners] that Randy would be a good man to have if we could get him. We hired him and he worked for us for years and did a very nice job. He damaged a couple of airplanes and John Becker would get mad at him, but he was part of the family for four years or so."

I asked him what he thought might have happened to Randy, and he didn't answer right away. He thought for a moment, and then he told me a story. He told it almost as if he'd forgotten the question.

Another fabled pilot, Bill Thomas, along with Bob Schnuerle and Clint McHenry, were practicing together for the U.S. National Championship. They met on Sundays at the airfield of Curtis Pitts, the inventor of the Pitts Special. One of them would go up and do aerobatics, while the others would watch and offer criticism to the pilot on the radio. Schnuerle was a test pilot for Curtis Pitts. He had made the U.S. Aerobatic Team in 1970 and by 1972 was the team trainer when Charlie Hillard won Best Individual Pilot and the U.S. Team won the Nesterov Trophy — the world championship — in France. That was the height of American domination of the sport. In other words, these were three of the most experienced aerobatic pilots in the world at that moment in 1974 when Schnuerle went up to find his death.

He was practicing inverted flat spins. For many decades, the inverted flat spin was considered a deadly mystery to be avoided at all costs. It was thought that a pilot, once he was in such a spin, could not recover. And these guys were doing it on purpose. "At that time, you could have counted on one hand the number of pilots who did inverted flat spins," said McHenry. Schnuerle was not merely one of them; he had taught the maneuver (or rather how to get out of it) to another famed aerobatics pilot, Art Scholl. Scholl died doing a television commercial. He spun all the way into the ocean. We never learned why.

Budd Davisson, a legendary pilot, aviation writer, photographer, and magazine editor, worked with Scholl and said that the plane Scholl was flying was his Pitts S-2A. The cameras they were using to film the commercial "were on Scholl's I-struts, and I can easily see the weight and centrifugal forces overcoming his own control inputs," said Davisson. "However, no one knows for sure. His radio transmissions saying he was in trouble is all we have to base it on."

On the Sunday that Schnuerle died, Clint was called away by his airline to fly a trip, so he wasn't able to attend. Bill Thomas went with Schnuerle to Curtis Pitts' field. Thomas was on the ground watching with a radio in hand to offer his comments. When Schnuerle kicked his Pitts into an inverted flat spin, Thomas must have said, "Yes, good, that's nice, very nice." For it was. It was perfect. Thomas watched Schnuerle all the way down.

"When it was time to pull out, he was out of altitude," McHenry said. "We had all talked about this. The thing about an inverted flat spin is that it is perfectly flat. You don't have any sensation of losing altitude. It's very confusing. In an upright spin, you see the ground coming up." The legendary test pilot Sammy Mason, who explored the unknown region of inverted flat spins, wrote, "The dysphoria was so overwhelming that I was unable to



The author with Citabria N36250, the gentlest plane in the world.

function physically or mentally. I said a brief prayer and waited ...”

McHenry went on. “You get hung up in what you’re trying to do, keeping it perfectly flat. I think Schnuerle had become so involved in the maneuver that he just lost his concentration. Bill Thomas wrote an article about it afterward and said that Schnuerle had become euphoric.”

Euphoric. That’s why we go up in the first place. Isn’t that the whole point? Or is it?

John Morrissey said that you have to have a certain attitude to fly a plane. You have to be a certain type of person. You have to have judgment and control. You can’t simply say, “What the hell,” and go wild. Anyone with poor impulse control, anyone who is disorganized, should not be flying, and especially not upside down. Flying upside down is not

skiing. It’s not baseball. It’s either a religion and permeates every corner of your life, or it’s a very patient fatal accident waiting for you. Hence the joke: Cheated the devil again. ... The devil is our own nature.

Erik Mueller, a famous accident researcher, noticed that in cases of those “unrecoverable” spins when a pilot managed to bail out, the plane recovered to normal flight even as the pilot floated down in his parachute. The pilot was the problem. When he let go of the controls, the plane righted itself. Planes were made to fly by some very capable engineers. It takes a pilot to make them crash.

There are only two scores in this sport: perfect and zero. It’s a pass/fail exam. Clint McHenry passed. Randy failed. It is not a judgment upon him. It’s an irrevocable fact, like gravity.

I still think Randy was a great pilot. I do not believe he died because he screwed up, although surely he was capable of it. Randy was a master of the how-I-almost-bought-it story. The heavy Russian Yak whose seatbelt gave way while he was inverted, smashing him against the canopy. It knocked him senseless, and he was barely able to get the stick back in his hand. The student who froze on the controls while doing aerobatics — and Randy couldn’t get this big fellow off. He ran Tom Cruise’s Pitts into a fuel pump and totaled it. The cowboy who went flying with his boots on and one of them got jammed in the rudder pedals. The plane was rolled into a ball on landing, but both occupants walked away. Randy had nine lives. I thought he had a million.

I'll never forget the first time I saw him. Patty Wagstaff, the top pilot in the U.S., had just landed at Hartford, Wisconsin. (I had arrived while she was practicing, and I landed underneath her.) As I got out of my plane, Randy climbed into a purple-pink Russian Sukhoi Su-26 monoplane with "Pink Floyd" painted on the side. (Sukhoi was the rival to Mikoyan-Gurevich, which makes MiG fighter planes.) He wore a single black glove, and he was concentrating hard. The Sukhoi is a huge plane for aerobatics. It has tremendous power and hypersensitive controls. The engine is a mammoth radial, black like the back of a rocket. The ground crew started it with a pneumatic assist, and as *Pink Floyd* roared to life, it unfurled a plume of greasy smoke that crawled along the runway engulfing other planes. Most pilots see an airplane and think, "I can fly that." I looked at the Sukhoi and thought, "No way."

Almost the moment Randy left the ground, he snap-rolled. Everyone gathered around to see what he'd do with the monster that had dominated the sport since its introduction in the 1980s. Randy was the first American to fly air shows in a Sukhoi. He was the first non-Russian to compete in a Sukhoi. And he was the first American to train with the Russian team. He spoke one word of Russian: "Benzin," which means gasoline. But I watched him communicate with them, and it was beautiful, with Randy gesticulating and jabbering in pidgin Russian, and the Russian pilots nodding solemnly and then bursting into laughter as if he'd told a great joke. He even looked Russian.

Pink Floyd climbed away from the Hartford airfield and turned back toward us. The hot-pink plane crossed our field of vision. Randy couldn't have been more than 300 feet up when he rolled left, right, left, right, about 10 times in rapid succession. The roll rate of the Sukhoi is about 720 degrees a second, which is to say, unfathomable. Two complete rolls each second. Randy was just warming up, getting the feel of it. Then he uncorked that 360-horsepower engine and screwed the airplane into the perfect blue sky. I laughed out loud. I'd never seen anything like it.

There was another man there who had just bought a Sukhoi. Rick Massagee was behind us, standing on the wing of his black Su-26. I remember hearing him talk to the mechanic who was bleeding his brakes. Rick would make the U.S. team that year. Two years later he'd buy a brand-new Sukhoi Su-29. He would take it up for the first practice of the season and pull the wing off it in a routine maneuver, owing to a flaw in the spar. Rick was killed while all my friends watched helplessly, as the pieces of the plane fluttered down. The tremendous force of breaking that carbon-fiber-and-titanium composite wing probably killed him in the cockpit before he hit the ground. Score for that maneuver: zero.

When I was a child and would shiver, my grandmother would say, "A goose walked over your grave." My last flight with Randy was inverted flat spin training over the very spot where he was to die. Randy told me to close my eyes. He put the plane into an inverted flat spin, then told me to open my eyes. No one's hands were on the controls when he said, "Your airplane."

My eyeballs rolled around like loose marbles in my head. Although I had pulled my harness as tight as I could before the flight, I was pinned against the canopy by the competing forces. The plane was rolling and yawing in opposite directions. The plane's nose was oscillating violently up and down while we went around and around. We were in the jaws of something grisly, and it seemed bent on shaking us to pieces. Randy had always called this portion of our training Mr. Toad's Wild Ride.

I reached for the stick, but it was pinned forward and out of my grasp. This was nothing new. We practiced inverted flat spins all the time, but something was wrong. What I'd always done before wasn't working. Power off. Let go of the stick

(as if I had a choice). Full rudder. Nothing. We were going down and down.

I saw the ground coming up, brown and green, like a boiling stew. It was getting close. Really close.

Randy said, at last, calm and mellow through the headphones, "Right rudder."

I stepped on the right rudder, and the plane immediately popped out of the spin.

We flew away at treetop level. My heart was pounding. I was sweating and panting. I was afraid. The ground was all around us, tree branches reaching up like the fingers of the buried dead.

"How much longer were you going to let me go?" I asked as we climbed away from the trees.

"Oh, not much longer," he said.

Of course, it was the classic mistake. I thought we were spinning right, so I stepped on the left rudder. But we weren't. We were *rolling* right. We were spinning left. And I wondered what would have happened at the crucial moment if I had frozen instead of doing the one right thing that was left to do. Was there really enough time left for him to save us? I shivered. But the goose had walked over Randy's grave, not mine.

I went to Van Nuys Airport and met Sheree at the hangar. The first thing anyone who knew them saw was how much she loved Randy. Randy was, after all, this gypsy pilot, this little stocky wizard of aviation, always flirting with people, flirting with death, laughing, chain-smoking, laughing more, and then doing things with the airplane that just seemed impossible. He could hang it on the prop like a helicopter. He could make it dip and bow like a dressage horse. And at an air show, he could do it at eyeball level.

At Randy's hangar everything was as it had been. The Pitts was still there, because Randy had crashed in Bob Miller's plane. Heidi Cayouette, who



I flew the Sportsman sequence with my father for his 70th birthday. He said, "You're a really good pilot." A high point in my life.

died with Randy, had wanted to fly an Extra 300. She was an experienced airline captain, but she hadn't flown aerobatics in six years.

I had gone to the hangar because I wanted to sense that Randy was gone. The hangar was decorated with whimsical cutouts of airplanes and cartoon pilots, with blue sky and clouds. There was a couch and the comfortable atmosphere of a place where people would sit and talk as the sun went down. There was a refrigerator in the back full of soft drinks and beer.

Randy's protege, a brilliant young air show pilot named Edan Shalev, had taken up Randy's place at his desk in the small office with the picture window that overlooked the hangar. The clutter had not been removed. All the framed photographs of Randy, hanging upside down in a Pitts like some sun-freaked incubus, grinned out at us. (He always grinned for those amazing photos.) The plane — our plane, Alpha Bravo, the one we all learned in — sat there, cocked back on its tail wheel,

ready for flight. Sheree sat on the couch smoking, and a few of Randy's students came and went, sometimes stopping by to chat, sometimes taking the airplane up, disappearing over the Santa Susana Mountains, and returning an hour later with that grin that says, "Yes, we did it again." I smiled at them, but every time I watched the Pitts vanish over the ridge, I felt a tightness in my chest until I saw it return. I had lost my innocence.

Miller showed up at the hangar after a while. He was one of the last people to see Randy and Heidi alive. He was a tall and thickly built man in his 60s, wearing a serious black Nomex fireproof flight suit and smoking a cigar. He drove up in a Jaguar, pumped my hand, and said, "Let's go fly the jet."

"Okay," I said, not even asking *what jet*. Only an hour before, I felt that my loss of innocence would somehow protect me. Yet the seduction of flight still had its hold on me. *Just one last flight*, I thought. I'll make this one exception.

Soon we were out on the ramp in the California sun preflighting a Czechoslovakian Delfin L-29 fighter from the '60s. It had one big hole in the back and looked like a buff aluminum stovepipe with a canopy and two crude ejection seats, "Experimental" stenciled on the side. "I'm trying to get ejection seats that work," Miller said as he went over the procedure for bailing out in case we didn't make it. He said we could fly up to Santa Barbara to have lunch and talk about Randy. This is standard procedure if you want to interview a pilot: You have to fly somewhere first. Otherwise, it doesn't pass the "so what?" test.

I noticed that Miller had a huge knife strapped to his flying boot on the outside of his flight suit. I asked what it was for. "In case I have to cut my parachute lines." It seemed to be a case of overengineering.

We climbed up the ladder and into the tandem cockpit and put on fighter-pilot helmets. I connected a multitude of straps, clasps, hasps, and wires. The trick when getting out was to unhook everything except the parachute. One pilot I

knew actually got out of his crippled plane safely, pulled the rip cord, and watched the parachute canopy open nicely above him with a soft pop. Only then did he learn that he hadn't fastened his leg straps. He shot out of the harness and fell 500 feet to the ground. He did that the morning after celebrating his appointment to the U.S. Aerobatic Team, and everyone said it was a morning-after kind of thing to do. Lots of toasts the night before. In a hurry to get home.

Miller started the engine. It was deafening. I put the shield down on my helmet, but from rollout to Santa Barbara I could scarcely hear. The acceleration was fierce. In moments we were going more than 300 knots.

We flew out over the ocean and up the coast. It was a clear day and probably 110 degrees inside the bubble canopy. I was soaked to the skin. I had flown a handful of fighter planes and jet trainers, including F-4 Phantoms and T-38s, and I much prefer the light, quick, strong (quiet?) Pitts Special. When the engine quits on something like the Delfin, it has the aerodynamic characteristics of a donkey. A fire in the cockpit is even worse. Amos Buetell, a pilot at my home airport, was bringing his new Laser monoplane home when he bought it. He was on approach when the propeller threw a counterweight. The plane vibrated so badly that it broke a fuel line and sprayed Amos with gasoline. He brought the power back to see if he could reduce the vibration, and it backfired, igniting the fuel. Amos was about to make the U.S. Team, but he was incinerated. He managed to land the plane, but it flipped over on him. It took him three days to die in the burn unit.

Miller and I landed at Santa Barbara and took on tons of fuel. The one nice thing about landing in a plane like the L-29 is you really get everyone's attention. Everyone was watching the Delfin from the outdoor seating of the little restaurant. Miller looked like some sort of mad sky warrior with the patches sewn on his black outfit and the knife and a mane of receding white hair. But he was merely a retired housing developer who liked airplanes.

This sort of tete-a-tete is what pilots call the \$2,500 cheeseburger. You spend that much in fuel, insurance, and hangar rental just to fly somewhere, buy a cheeseburger, and go home again. All in a thunder of glory, of course.

At lunch he told me his theory of the crash. "It had to be a foreign object in the cockpit," he said over club sandwiches. He told me a story, well known among competitors, about a man driving a Pitts. On approach, his controls locked up. He forced them with all his strength and managed to get the plane landed. There was a nickel caught in the controls, and he had bent it in half struggling with the stick. "He wears it around his neck now," Miller said. "Something jammed the controls. What's he got at those speeds? A second, two seconds? There's not enough time."

I had already talked to the NTSB investigator, Richard Parker. He told me that he'd gone to the crash site, looked at the plane, and had seen Randy and Heidi in the cockpit. "There is no need to dwell unnecessarily on the crash site," he said, "but that is a very robust plane, and the cockpit was intact, and it contained the occupants." They were dismembered. There was not enough for an autopsy.

As for the cause of the crash, he said it would never be known. The plane was removed to a hangar and examined minutely. Its maker, Walter Extra, flew in from Germany to aid in the investigation, along with members of the International Aerobatic Club, but no one could find anything wrong with the plane. No bent nickel was found.

Miller went on. "When the plane hits going that fast, everything scatters. He's got a garage sale. No evidence. No cause. I know that's what happened, plain and simple. The Extra is easy to fly. There's no way either Randy or Heidi drove it into the ground unless something was broken."

We thrive on tales of the dead. Paradoxically, it's the lifeblood of our passion. We even subscribe to newsletters that recount the crashes of our fellow pilots in loving detail and pore over them obsessively. It would seem morbid to those who

do not fly, but the stories embody our own imperishability. And in our meditations we find no augury of our own fate. On the contrary, the detailed technical analyses of fatal crashes bestow on us a completely illogical sense of mastery. We rehearse the drama to avoid taking part in it.

I now had two completely different theories of what happened. Euphoria and the bent nickel. There would be more.

We got back into the Delfin and I flew it home. Miller asked if I wanted to go out over the valley and do some aerobatics. I told him I didn't much feel like it.

When we landed, there was an even bigger crowd at Randy's hangar. The beer came out at dusk, and it was a party. Edan Shalev, Randy's protege, sat in the office rather quietly, though. He seemed apart, within himself. He had taken Randy's sister for a ride in Alpha Bravo, and she had come down in tears.

After a while I went to sit with him. He was a youthful Israeli, tall and thin and Mediterranean-looking. He had wanted to fly aerobatics since he was a child. Like Clint McHenry, Edan got his license with the sole purpose of flying upside down. He immediately began flying with Randy, and there was no looking back. Randy groomed him for the contest circuit and saw that Edan was a world-class flier from the start. There are people who spend a lifetime trying to become as good as Edan was. Something in Randy's demeanor suggested that he was desperately reaching for a goal that would forever elude him, like the scientist who longs for a Nobel Prize and at a certain point realizes it's not coming.

But Randy had qualities he probably never even realized he had. He had a voice, charisma, and a personality, which had kept him in the hearts of a huge number of people. When Tony Bill gave the eulogy, he said that when he thought of Randy, he didn't see him, he heard him. I understood that. When flying with Randy, we'd sit in the back

seat, the pilot-in-command seat. Randy would sit in front. His voice came through the headset we wore. It was a deep, friendly, comforting baritone with a slightly rolling Southern sound to it. Like the Wizard of Oz, he could grant our wishes, but we couldn't see him. We could feel his hands and feet on the controls as he demonstrated maneuvers. Once while teaching me, Randy flew the entire Sportsman sequence blindfolded to prove a point. We were the blind, learning by touch.

Randy's accomplishments were significant. He flew air shows in 22 countries. He was a member of the Canadian Aerobatic Team and competed in two world championships, though he didn't win. He was a stunt pilot and stunt coordinator for motion pictures, including "Primary Colors," "Ransom," "Congo," and the TV series "Beverly Hills 90210." But all the while he had other dreams. To win the world championship (he never did). To finish a degree in aeronautical engineering, which he had started at Embry-Riddle (not that either). Finally, Randy had a dream to qualify for the astronaut program.

The truth was, it was Randy's gypsy soul that kept him from all that. The very thing that made us love him. In the 1980s, he lived out of a CAP 10 French aerobatics plane (occasionally touching base with his trailer in McKinney, Texas). Like the barnstormers of old, Randy traveled from place to place, giving air shows or rides or lessons and making just enough to get him to the next place. He didn't settle down until he met Sheree, and then he began thinking seriously about why he lived and what for, and sometimes I could see worry overcome his smile — that stolen, outlaw glance to one side — as if asking himself: Am I a failure? I could see him wonder: Does anyone see through this?

What he did was give it all to Edan. He passed it on to a brilliant and gifted pilot who also had a dream to fly.

"It was very disappointing," Edan said of the world championships,



Captain Federico Gonzales (sunglasses) with his crew before a B-17 bomb run over Germany, 1945. He was the sole survivor.

where he flew as the sole member of the Israeli Aerobatic Team. "It was basically cliques of people, and whoever had the most friends or the most money scored the highest. I saw that there was nothing for me in world competition. One team scored high because the judges were from their country. Someone else came up and flew just as well and scored low. It was all hot air. I never went back."

Edan took up air show piloting and joined a commercial team that performed for pay. Four Pitts Specials, all painted the same. They'd do 20 shows a season. Most air shows are in the summer. You can do the arithmetic. In most years there are only 13 Sundays during June, July, and August.

"We'd be flying at night, which is illegal in the Pitts, flying IFR [in the clouds] in formation. You didn't dare lose sight of your wingman, because if you did, you're lost, and there's no way to find you. But we had to get to the next show. Once we flew all night, and flew the show without sleep. It was dreadful."

But he was living the life. He was a real air show pilot. Randy really was the Pied Piper. He'd made Edan into a gypsy, too.

"When Randy died," Edan told me, "it just took the heart out of it. Before that I felt like I was flying with all his knowledge. He had imparted to me something that kept me safe. I mean, he had 13,000 hours in the Pitts. I just assumed that because Randy had done all the things he'd done and gotten away with it, that he'd passed on to me what he had. I have only 1,200 hours in the Pitts." Edan says only, but that's a decade or two of aerobatics for most pilots. "Now I think about Randy every day." That's the problem with this sport. One day you're having more fun than you've ever had. The next day your life lies around you in pieces.

Before the crash, Randy and Edan had a full schedule of teaching. They were a team. They had students coming and going all the time, sometimes sleeping on the couch in the hangar. Now Edan teaches only on occasional Sundays and only a select few students. Tom Cruise has come back from shooting in England, and Edan is teaching him. Edan had tried to quit the air show business, "but there were five shows this summer for which they couldn't get a replacement, so I'm flying five shows instead of 20. My heart's just not in it." Edan has a real job. He does computer design for a robotic helicopter, which carries a motion picture camera.

"Do you fly the helicopter?" I asked.

"No," he said. "I don't want the responsibility. It's too easy to kill somebody. The thing has a 15-foot wingspan and it gets really close to the actors. We've lost rotor blades before." So for the time being, he is content to do computer work and seems more or less in full retreat from the skies. But maybe Edan knows something we don't know. Maybe Edan has learned a secret. Control and judgment. Maybe Edan is about to have his perfect score.

I asked Edan what he thought happened to Randy. He said that it sounded as if Heidi had been doing a hammerhead when the problem started.

The only witnesses were a Los Angeles County Sheriff's Department homicide detective and his wife. Michael Scott was driving home from Ventura on Highway 126. His wife, Lisa, looked out the window over the orange groves in the Santa Clara River Valley just north of the Santa Susana Mountains. She thought she was looking at a radio-controlled model airplane and tried to point it out to her husband. She knew nothing about airplanes or aerobatics, and so she was able to give only a general description of what happened. As she watched, the plane went straight up. As it climbed, it lost speed, and when it stopped climbing, it began spinning down. She said it spun all the way behind the rows of orange trees. That was a Saturday. Lisa and Michael Scott didn't think any more about it until Monday, October 27, when he saw the crash reported in the *Los Angeles Times*.

"The plane wasn't spinning when it went in," Edan told me. Richard Parker of the NTSB confirmed that.

"When an aircraft spins in," Parker said, "it hits at a relatively low speed, and the wreckage tends to be scattered on the surface. In this crash, the engine was buried up to the accessory case." In other words, the plane was going fast enough to bury a large six-cylinder, horizontally opposed, 300-horsepower aircraft engine.

I asked Edan if he saw the wreckage, and he said, "No. I couldn't go. I didn't want to see. I made the mistake of going to look when a friend of mine crashed out here. I was naive, and I rushed out there. And even now, sometimes when I close my eyes, that image just appears in front of me. I didn't want to see Randy like that. I can tell you that it was ugly. There wasn't much left."

"So what do you think it was?" I asked.

"Something went wrong. It had to be something stuck. The Extra doesn't really like to spin. It's difficult to spin, so I don't think they could have gotten into an inadvertent spin. And with both Randy and Heidi on board, they weren't going to just forget and drive it into the ground. Something stuck. Something broke. We'll

never know why. But it tells you: It can happen. It doesn't matter who you are."

He was right. The Blue Angels were practicing a loop in formation, and the lead pilot went in. All three of his wingmen went in after him.

Tony Bill's wife, Helen Bartlett, is a film producer. Helen loved to fly with us. She took flying lessons and even soloed. She'd fly across the country at the drop of a hat. She eagerly accompanied us as a passenger during aerobatic practice. Tony proposed to Helen while flying inverted. "We were flying along, and I rolled the airplane upside down and asked her to marry me." So she was not a typical nervous flyer. But after Randy's death, she was having dinner with Tony and Treat Williams and confronted them about the dangers to which they exposed themselves in the pursuit of their favorite sport.

"I told Tony and Treat," Helen said with a four-month-old baby crying in the background, "that I just wanted to know when my husband goes up to fly that if he dies, he'll die happy. I wanted to know that it meant that much to them." It is curious that Helen and Tony remember the response differently. Helen recalls that Treat said, "We don't fly to die. We fly to live." Neither one of them could say that they were willing to accept dying in a crash, so I said they had no business doing it anymore."

But Tony said, "I'd argue with her about that. We both said that flying does make us that happy. And we would die happy if we died in an air crash." These are the contradictions inherent in the sport, the very ones that make us say we'll never go up again. Then when we find a fiery red biplane under our nose, we leap in with complete abandon and charge off into the sky with a big grin.

What is the passion, what power of freedom, drives us back again and again to face this danger? I know from my own experience that it doesn't even feel like danger, not when we're doing it.



My photographer Jonas Dovydenas built this Falco. We landed on dry lakes in the Black Rock Desert and camped on assignment for National Geographic.

Does making love with a woman feel like paying alimony for 20 years?

Faust, when he made his deal with the devil, had only three wishes, and one of them was to fly.

About Randy's death, Helen said, "I think he had a heart attack. It's the only explanation that makes sense to me. I can't think that Randy made a mistake." In fact, one of Heidi's friends described her as "maybe 100 pounds soaking wet." She was tiny. And if Randy had suffered some sort of incapacitation — heart attack, aneurism — and had slumped over the controls, Heidi might have found it difficult to overcome his weight.

She might have broken the stick off trying.

Mike Goulian, a top competitor, was doing an outside one-and-a-quarter snap-roll when the stick broke off in his hand. He, too, was flying an Extra 300. There was just enough metal left that

he was able to pull back on it, and he survived. Heidi might not have been that lucky. Especially taking into account that she may have had only seconds to work with.

I asked myself: Could an overweight chain-smoker who had endured 13,000 hours of hard g-forces have a heart attack? I asked Parker at the NTSB, too, but he said that the remains were too badly damaged for a conclusion to be drawn about Randy's health at the time of his death.

I flew my last flight with Edan. I took off and climbed away from Van Nuys north toward the Santa Susana Mountains. It was the way I'd always gone with Randy. A few miles from the airport I practiced Dutch rolls, then rolled inverted and practiced them upside down. I flew around inverted for a while, turning left and right, doing flat turns, just playing with the airplane.

As I made my flat turns, Edan said, "Randy loved that maneuver." There was a voice in the back of my head. What was it saying?

Yes, Randy would have made Heidi perform the coordination exercises I'd just done. She hadn't flown aerobatics in six years. Randy would have wanted to see how she was on the stick, see how rusty she was. He would have said, "Why don't you try some Dutch rolls?" And when she was done with those, he would have said, "Now do them inverted." First Dutch rolls, then flat turns, both upright and inverted. That's always how Randy liked to do it. He would have wanted to get Heidi limbered up and ready to fly the sequence. Why was this important?

Suddenly I remembered that once when Alpha Bravo was in the shop, we had flown a borrowed Pitts. When I had rolled inverted and started shaking the wings

in a Dutch roll, we found a pencil, an earplug, a pair of sunglasses, and the odd gum wrapper all raining down on us. The canopy was clear plexiglass and the objects fell so that they were visible there against the amazing sight of the entire topsy-turvy world. That was part of the reason for the exercise: It was a good warmup, but it was also a way to find anything that might be loose in the cockpit. If there had been a foreign object in the plane with Randy and Heidi that day, it would have fallen to the canopy and they'd have found it.

I flew between two peaks, and the Santa Clara River Valley opened up beneath us. It was a rich valley, a beautiful, green flood plain. I began doing loops, spins, and rolls. Every once in a while, Edan would take the stick and say, "Let me show you how," and I could feel the transformation. It felt as if I'd passed my cello to Pablo Casals. The difference in the way the plane felt was frightening. I had gone to the contests. I'd even come home with a plaque or two. But I clearly didn't know what I was doing. Not compared to him.

He has that touch, the golden hands. The curious paradox about Edan is that he is the perfect pilot — clearheaded, serious, in control, no fooling around. Randy's genius was that he'd seen in Edan what, in his heart, he felt he might have been missing. Randy was desperately trying to pass everything to Edan before it was too late.

I moved on to Cuban-eights, Immelmanns, split-S's — more complex combinations of the basic maneuvers. Then I did a few half-hearted inverted spins and stopped. I circled. "Where did Randy go in?" I asked.

Edan pointed it out. "Right in that orange grove down there by the river," he said.

It was all green. There was no sign that anything had gone wrong down there in that placid valley, especially a thing as violent as the complete destruction of an aircraft, nor so grisly as the way Randy and Heidi had died. I wondered how it was for Randy and Heidi then. Was Randy slumped over the controls, incapacitated? Was Heidi all alone, struggling with the stick, with only moments to spare?

I remembered my interview with Lisa Scott, the wife of the detective who was driving that highway right down there. I was flying parallel to Highway 126 as I recalled Detective Michael Scott saying, "I was surprised that no one else saw. There were Chippies [California Highway Patrol officers] all over the place stopping speeders." But he hadn't seen much. Only the last few moments. "The plane was definitely spinning," he told me. "The tail was rotating in a larger circle than the nose. The wings were rotating. Then it went behind those orange trees, maybe a mile off. I said something about [how] they'd have to buy a new plane, and then when I saw the story in the paper, I felt bad. I shouldn't have said that. I had no idea that there were real people in there." I could hear the shock in his voice of knowing he'd witnessed the last moments of two lives.

His wife, Lisa, had watched Randy and Heidi for longer before they crashed. "It was quite a distance, but it caught my eye because the sun was reflecting on it," she told me. The way the sun is reflecting on my wings now, I thought. That late light. It really pops when it hits that high-gloss dope they use to paint these show-planes. "It was flying normal, straight and level," Lisa said, "but as it was doing that, it would tilt to the left, tilt to the right, tilt to the left, tilt to the right." She was describing Dutch rolls. I knew it.

"Was it right side up?" I asked.

"Yes," she said. "Right side up. It did that for about a minute. Then it went straight up like it was going to go to the moon."

I could just hear Randy saying it: "Why don't you try a hammerhead?" Randy loved hammerheads because they were simple maneuvers, but difficult to do perfectly, easy to screw up. And the recovery portion of the maneuver is tricky. You've

got full power and zero airspeed. Without proper coordination of stick and rudder, a pilot can easily throw the plane into an inverted flat spin and never know what happened.

Lisa again: "I don't know if he was going to ... you know in an air show when they go straight back down again? Or was he going into a loop? But all of a sudden he started falling, and it was out of control. It wasn't doing what he was supposed to do. It was turning and twisting, but it didn't look like it was a maneuver to me. It was nose-down. The wings were rolling. The tail was going around wider than the nose. It was falling out of the sky." The plane was ahead of them as they drove, and she watched it disappear behind those dense green trees down there along the river and the road. "When we went past the spot, we looked to see if we could see people trying to find it, but there was no one. No smoke. No puff of dust. It was so sad when we heard there were real people in it."

So sad.

I remembered once or twice when I had nearly died, how sad it was for a moment when I thought I'd never see my kids again. I remembered asking my father what he felt, what he thought, as his B-17 spun inverted toward the earth from 27,000 feet over Germany on January 23, 1945. He was the lead pilot, taking 700 aircraft into combat, and his left wing had been shot off by flak over Düsseldorf. His co-pilot was already dead, and my father was unable to get out of the plane. He told me how sad he was when he realized he was going to die. How sad he was that he'd never see my mother or his mother again. "I wasn't scared," he said. "I was just sad. Very sad."

"I'm through," I told Edan. "I'm going back."

"Don't you want to fly some more?" he asked. "You're doing okay. It's your flight. We can do whatever you want."

"No, I'm through. I'm heading home."

A few weeks later I was talking to John Morrissey and we were recounting how many people had died in this sport. And why. Miles Merritt's name came up. "He bought a Sukhoi Su-29," John said. "A dentist doing an air show."

"How did it happen?" I asked.

"I don't do dentistry," was all he said.

His son Matthew Morrissey had flown with the Red Barons, an air show team that used Stearmans. The first time they took Matthew up to introduce him to the team, "the guy who was giving Matt the ride ran into the guy he was joining up with," John said. "Matthew's first ride! They managed to get the planes on the ground. They put 'em in a hangar and shut the door so no one could see." John's point: There is no Good Housekeeping Seal of Approval for pilots. So don't trust anyone. People who crash in front of a crowd are not having a "tragic accident." They are members of the Why-Didn't-It-Happen-Sooner club.

In 1998, two of the Red Baron team members ran into each other at an air show. They collided nearly head-on in a great orange fireball, and both pilots died in front of a huge crowd.

At the end of our conversation, John said, "Come out and fly some stunts."

And I did. Because we don't really believe that the devil will ever call us to account. We believe that our platinum card has no credit limit.

I called Clint McHenry to check on a fact or two. "How long has it been since you last flew aerobatics, Clint?" I asked. "You said seven years, I think. Is that right?"

"Yes, I think that was about right," he said over the phone. His 76-year-old voice sounded more youthful than it had before, somehow full of energy. "But actually I've done it again in the

last few days. A friend of mine has a Christen Eagle, and we went up and did some rolling 360s and that sort of thing, but no *serious* stuff." A rolling 360 is a very advanced maneuver.

"Clint," I said, surprise and even admonition in my voice. "Do you mean you're getting back into aerobatics?"

"Well, I might be ..." he said somewhat sheepishly. "I dream about it at night; I might as well go play around a bit."

With Randy, it could have been me, of course. But Randy was such a superstar in my mind, I never believed that it

could happen to him. Once Randy was dead, proving that I was wrong, I somehow transferred that magical aura to Edan Shalev, because he flew like something I'd never seen. It was a dream, like copper rails were guiding his Pitts through the sky, an electric marvel. But I could tell that it was over for me. I quit for good. I did not die in an airplane crash. But that episode of mad obsession took perhaps eight years out of my life from about 1988 to 1997. After a time, after I'd quit flying, I was shocked to see in the news that Edan had died in a crash, too. I thought it was even more inconceivable than Randy's death. Randy had that goofy personality that might allow a bit more danger in. Edan was dead solid perfect, arrow straight.

Doing an air show over the Palisades Reservoir in Idaho, Edan had been drawing hearts in the air above the water using smoke for the tracery. It was July 4, 2024. Then he did what Randy would have taught him to do to wrap up a demonstration: Mr. Toad's Wild Ride. An inverted flat spin. He misestimated and pulled out a second or so too late. **IAC†**



I was the keynote speaker at General Electric's annual safety conference in 2019.

Laurence Gonzales is the author of *Deep Survival: Who Lives, Who Dies, and Why*, along with the aviation classic *One Zero Charlie*. The Crown imprint of Penguin Random House will publish *Isolato: An Intimate Portrait of Cormac McCarthy* in 2027. The University of Arkansas Press will publish *The Night Shift: Trauma, Genius, and the Unconscious* in early 2027. For more, see DeepSurvival.com.