THE COUNTDOWN

Strapped inside a cramped, thin-walled capsule perched atop 200,000 gallons of highly combustible rocket fuel with only 30 seconds to launch, a quote by rocket engineer, Tom Mueller popped into my head.

“There are a thousand things that can happen when you light a rocket engine, and only one of them is good.”

Of all the things I dreamt I would experience during my first launch, having this phrase creep into my consciousness was not one of them. I couldn’t recall where I’d come across the quote, but I wanted it to go away.

Instead of appreciating that out of the thousands of talented astronauts, I had been chosen to be the first to command a solo mission to the moon, instead of feeling pride I was on the cusp of fulfilling a childhood dream, thanks to Tom Mueller, I'm at risk of soiling my pressure suit.

This was not how it’s supposed to be. If they made a movie about my life, this moment would be played by an actor who would portray a calm and collected badass. Not a guy trying to keep his bowels in check.

I force myself to focus on the task at hand and concentrate on the displays surrounding me, looking for something to do. But really, nobody in mission control wants me fiddling with anything.

From this point in the countdown until I reach orbit, on-board computers and internal guidance systems manage everything. I’ve become little more than a highly trained piece of luggage.

"A thousand things…only one of them good."

Then, just as suddenly as the phrase had begun another negative loop in my head, something miraculous happened.

The flight psychologist Space Corps assigned to me would tell me it was something that happens when a person finds themselves in a near-death situation and they recall their life experiences, evaluates and analyzes them to achieve a more profound self-concept.

She called it a life review.

I call it a miracle.

T-Minus ten: I saw myself sitting in the overstuffed recliner in the ready room five hours ago, watching the three technicians fussing over my pressure suit, making sure it was ready to go.

Although viewing myself as a third person spectator, I'm able to recollect what I was feeling in the first person as the O-ring connections were double, then triple checked, and I went through the com tests.

I'm calm, at ease, not the least bit apprehensive. I had gone through the exercise so many times during my years of training, my mind is focused. My concentration is clean, crisp, razor sharp. Pure thought without the messy nonsense of emotion.

T-Minus nine: I see my wife Mae during our final video chat. Even with her root-beer-brown eyes glistening with tears, she still made apprehension and fear look elegant and poised. Those who don't know her dismiss this attribute as being cold and aloof, but I know better. That's one thing I love about her. She only allows a select few in and it takes your best to be a part of her inner circle.

I wanted to reach out and gently wipe the tear that threatened to spill over. I wanted to tell her everything was going to be okay, but tucked away in quarantine, in those last few moments I said, "Be right back, Pilgrim. Don't wait up for me."

My John Wayne impression is terrible. She chuckled. Only a little, but it was enough. If the worst happened, I felt better knowing she could look back and know that our last moments were spent laughing and smiling.

T-Minus eight: My final simulator check flight with instructor Targus. He's coaching me up, telling me I should view this last sim flight as just another routine check flight, but I knew if I nailed this, I'd be selected to make mankind's first solo lunar flight. It would be me who would lay the groundwork, providing proof of concept to build the first lunar outpost.

That sim flight was anything but routine. Space Corp had kept a tight lid on the selection process. There had been no press releases letting the public know about the internal competition. That carrot was dangled in front of us twenty-five astronaut donkeys. After eight months of grueling tests and performance evaluations, it had come down to me and one other astronaut, Val Tremilov. The only complication? Val was he was my best friend.

Val and I had flipped a coin earlier that morning to determine who would fly first. As "heads" would have it, it was Val, thus providing me with both a target to shoot for and a slight advantage.

Val flew a clean mission. My target was to beat his 98% efficiency rating. I needed to be perfect, or at least only one percent away from perfect to win the moon shot.

The entire sim-flight was a blur, but the landing I'll never forget. That landing got me the moon. The programmers had put in every conceivable system error, including a near abort status crosswind that had posed the biggest challenge. With the lightest touch on the control stick, my landing was smooth. I'd made it look like there was only a slight breeze. Val had bounced his landing ever so slightly.

T-Minus seven: It had arrived old-school style. A letter delivered by the base postal service. No holographic communication, no electronic transmission, no instant message, but good old-fashioned ink on paper. I stood at the edge of the road next to the dilapidated mailbox with letter in hand, too eager to wait until I went back inside to open and read it.

It's ironic the most technologically savvy agency on the globe used an analog method of informing an applicant they'd been accepted into the astronaut corps. That single piece of cardstock had weight. It possessed gravity. The first six words, printed in Ariel Bold font, changed the trajectory of my life.

"We are pleased to inform you."

Euphoria swept over me the way the scorching desert winds of Edwards Air and Space Command made the letter shudder in my hands as if it were in a high-pitch stall.

T-Minus six: My first day at Edwards. I'd reached the summit of success. Standing in my officer's quarters, surrounded by ancient cinder block walls, I recalled the movie The Right Stuff. I'd watched the movie over and over on the classic movie channel.

Unpacking the few belongings I had, I reflected on how my assignment at Edwards was akin to living on a razor's edge. On one side, rich history and nostalgia permeated every building, every house, and every road.

Even the landscape added to the mystique. One couldn't help but wonder if the Joshua trees growing along the flight line had become bored having witnessed an endless parade of exotic aircraft leaping into the sky.

When I landed and taxied upon arrival, it was as if those Joshua trees were whispering in the wind, "I was here watching the likes of Yeager, Crossfield, Armstrong, and Dana."

On the other side of the razor, those same Joshua trees stood and watched as we too were testing and flying the latest machines that ever took to the skies as we continued the traditions to push the limits of man, machine and the technology that married the two together.

Like those great icons before us, we, too, were creating history. A history that would be measured and appreciated a century later. The excitement and thrill came from straddling that razor's edge, which proved to be just as thin and sharp as the boundary between sky and space.

T-Minus five: Although the top in class had not been revealed until the day before graduation from the Air Force Academy, all of us knew it had come down to a two-man race between me and Val.

Val won.

That proved to be one of the best things that could've happened. I vowed I would show the Air Force they had made a mistake. Being a superior aviator involves much more than being a superior pilot. There are thousands of superior pilots. Val, according to the Academy, was one of them.

Because Val was my best friend, I knew his deepest motivations for success were based less in proficiency and more because of his fear of failure. I'd come to expect a certain amount of failure, secure in the knowledge that the only way failure would be victorious was if I didn't get back up stronger and more confident than before.

T-Minus four: Frank Griffin, my private pilot instructor, walked toward me with a pair of scissors in hand. I had just completed my first solo cross-country flight in the flight school's Cirrus SR22. As was the tradition when you become a private pilot, he was coming to cut the necktie I was wearing in half.

Truth be told, I was terrified during that first solo flight, but had buried it, believing it meant I was weak and cowardly. It was during our post flight briefing I admitted to Frank how afraid I had been.

“Fear is healthy. Don’t bury it,” Frank explained. “Fear can make you a better or a worse pilot. It can either dull or hone your skills. While you can’t control if you experience fear, you can choose how it will affect you. It either controls you or you control it. Don’t run away from fear. Embrace it. Channel it correctly and it can be the whetstone to hone your skill so that your proficiency and preparedness cuts through fear.”

In a split-second of present awareness, with Frank’s calm voice resonating in my mind, I peer at the various instruments in my tiny capsule and see the countdown timer at four. Assured everything is looking good, with the memory of how I’d dealt with fear in my past coming to the fore, a surge of confidence courses through me.

T-Minus three: I see the small ramshackle administration building at the small county airport eight miles outside of Turlock, California. That rundown rural airport was a second home to me as a young teenager.

Even at the time I realized it was unusual for a teenager with a driver’s license and access to a car to hang out on weekends at a rarely used airport, sometimes waiting the entire day for a single plane to land, but it didn’t matter. I wanted to surround myself with all thing’s aviation. While my friends played VR games that simulated flight, I wanted to be around the real thing.

The smell of rotted wood and aviation gas permeated everything. Aviation was in the wind. It was in the dust that blew across the tarmac. With my every breath, I knew that’s where I belonged, that aviation was becoming a part of who I was.

T-Minus two: 500 feet above an alfalfa field, sitting on my father's lap, my tiny seven-year-old hands gripped the yoke of a Cessna 152. The nose was pointed toward the large 180 painted in white block style numbers at the end of the ribbon of runway that was filling more of the windscreen with each second.

He was talking me through my very first landing. He took my right hand off the yoke and placed it on the throttle, explaining that the throttle dictated altitude. My job was to keep the wings level and listen to his commands for more or less throttle, while he would take care of the rudder pedals.

Down we came, dipping left, dipping right. A little more throttle, a little less. Finally, we crossed the runway threshold and as I pulled the yoke toward me the in the final flare, he instructed me to push the throttle all the way in.

A second later, I heard the unmistakable screech of tires on the short, 3,200-foot asphalt runway. I had done it! The unforgettable feeling of pride made my ears ring. Even after all these years, whenever I think back at that moment, they still do.

T-Minus one: I saw five-year-old me. It was an early summer evening, and I sat on the front lawn of our home in Gustine, California. I was examining the leaf pattern on a dandelion when I heard the rumble of a jet overhead. I turned my gaze skyward and there, streaking across the sky toward the orange hued sunset, was a commercial airliner, its silver-skinned fuselage

glinting in the fading light. Behind, contrails spilled like white ribbons from the four engines mounted under its wings.

It hadn't been the first time I'd seen a plane flying overhead. But in that moment, transfixed, for reasons I cannot explain, I said, "I'm going to be a pilot."

I'd said it with a certainty that's never wavered. From that day onward, I knew my purpose was to be among the clouds. And once I'd danced and soared among them, I knew the bounds of gravity were only temporary and soon I'd be forever falling in the weightlessness of Zero-G.

T-Zero: The present came roaring back with the ignition of the five J100 engines thundering to life and throttling to full power beneath me.

"I'm going to be an astronaut," I repeated with the same conviction and unwavering confidence, knowing I was fulfilling what I was destined to do.

Looking at the mission timer on my control panel, I saw it had crossed the magical quadruple zero boundary and was now ticking on the T-plus side. In addition to time, I'd traversed from the background of fear to the foreground of excitement. The one good thing that Tom Mueller said could happen, did.

I heard the unaffected voice of the Capcom controller confirm I had achieved liftoff and seconds later, I had cleared the launch tower. At last, I smiled. Not because I was on my way or because I felt a sudden rush of accomplishment, but because I imagined somewhere outside, maybe sitting on a beach not far away, there was a boy or girl studying the shape of a shell. Upon hearing

the roar of my engines, they would see my silver-skinned rocket glinting in the sun rising on a column of thunder and fire, and they will say to themselves, “I’m going to be an astronaut!”

Arching away from the earth, joy and profound gratitude perfuse every cell of my being, imagining that boy or girl and realizing for the first time in my life, I’ve come full circle. My first orbit was completed not around our Earth, but completed in the vacuum of space that lies between my heart and soul.

Within the span of the final ten seconds of the countdown, I’d recalled experiences, and achieved a more profound sense of self-concept.

The flight psychologist called it a life review.

I call it a miracle.

The End