

## Mission STS-107

a short story by Stephen Komae

The lights were blinding. Then the roar came, the sound of a thousand voices. I stepped out and squinted to see inside the hangar but I was met by an explosion of camera flashes clicking all around me. As tired as I was, I couldn't help but grin at the reporters. Waves of cheers pounded my eardrums, the deafening roar of an excited crowd. It was 1969 and I was a national hero, the center of attention. I was home.

That was some 33 years ago. Things have changed a lot since then. I used to be someone important. I could go places, and people would instantly recognize me, calling me by my name. They would shake my hand, buy me a drink, and ask for my autograph. But now I'm a nobody. When I go places, nobody stops me, no one says, "Hey, you're Major Tom, astronaut from the Apollo program." No one has much interest in NASA anymore, either. Once NASA was the very pinnacle of human civilization, a symbol that made people proud to be American. NASA represented the future, promises of great things to come. Young Americans all over the nation dreamed of being astronauts. We were heroes, super-men and super-women, who bravely risked our lives to explore the solar system and advance human knowledge. But now, we are shadows of the past, no longer idolized.

Back when NASA had more funding, we always had our celebrations in Mission Control after each successful mission. All of us were there - engineers, astronauts, wives and girlfriends. There wasn't any shortage of corporate sponsors then. I'm not sure when quitting time was called because I never quite quit. When I quit, that's when the nightmare would begin - a nightmare that would haunt me for three decades.

*I'm strapped down in the cabin of my capsule, sweating profusely in my launch suit. The claustrophobia setting in, the feeling of the walls closing in around me, my heart pounding as I fight the urge to leap from my seat. I wipe my sweaty brow with the sleeve of my uniform as I await launch. "T minus thirty seconds remaining... T minus twenty seconds... ten... nine... eight... seven..." My throat dry, I tell myself not to think about the straps holding me down or the confined space of the cabin. I tell myself don't think of aborting the mission even as my eyes glance over to the console and my fingers reach for a small red button that some wise-ass engineer labeled "PANIC." No, I can't abort the launch. I tell myself to hold on for the short ride through the atmosphere; the vast emptiness of space is just moments away. But I lose control and end up jabbing my stubby index finger at the ABORT button.*

That's when I wake up, shaking and shivering, knowing that I'm no hero, just Tom, the guy who has never been able to conquer small, tight spaces. I've conquered the vastness of space, but give me one little enclosed corner, and I'll freak out. Since my trip to space, the dream has haunted me, even while awake. Everything feels so small, so enclosed. That's when I feel the panic welling up inside me and I collapse to my knees, emptying the contents of my stomach onto the sidewalk. As I lie there, curled up in a fetal position, I long to get back to space, where it is free of enclosures. When you're up in space, it's beautiful, nothingness all around in every direction. Even inside the little three-passenger Apollo capsule, once you're in space, you feel free.

Some hero I am, Major Tom, who is undone by small dark places where you can barely catch your breath.

It was the summer of 1936, and I had just turned 4. The family had gathered for their traditional July 4th barbecue. While the adults sat in their lawn chairs telling stories and sipping wine coolers, my cousins and I amused ourselves playing a variety of games. We played my favorite game, Hide-n-Seek, only this time I was determined not to be found first. I had the perfect spot, the bottom of my mother's cedar closet, under the panel where she kept the winter blankets. At first it felt good hiding in that dark quiet place, so I waited. I had fooled them, no one found me. I pushed against the panel. It didn't move. It was latched tight. I screamed, then I started to pound the walls around me, but the blankets seemed to muffle the sounds. No one heard me, no one came because everyone was now outside on the lawn watching the fireworks display. Time passed. I soiled myself. It felt like an eternity before someone found me.

Over the years, I found ways to be in open places. But when my capsule re-entered the Earth's atmosphere, everything felt smaller. The Earth, I had thought of as a huge planet, 12,756.28 kilometers wide at the equator. But it suddenly didn't seem so big anymore. Terra firma felt small and enclosed, imposing limitations on its inhabitants. The minute the capsule hit the water, I felt the familiar fear and the suffocation. Leaving space left me with a very dark, empty feeling inside, as if my soul had been sucked up by a black hole. Almost every night, the bottle became my best friend as I tried to drive that emptiness away. But like a black hole, no amount of alcohol could fill the void.

As the decades went by, NASA lost its stature. The Space Transportation System, NASA's greatest pride, known as the reusable Shuttle, used to invoke a sense of awe in those who viewed it. When its prototype, Enterprise, was first introduced in September 1976, the Orbiter represented the future to millions of Americans. But NASA's signature bird no longer impressed the public as it had so long ago.

Even though I was no longer on the active list, I got to sit in the mock-up cockpit used for training. I fell in love with the bird the moment I sat down, and I allowed myself to imagine, for a moment, that I was in space again. I managed to leverage my connections to be at the pad so I could view every launch of that ship. I refused to give up my dream of flying again. I spent so much of my time at Mission Control that my wife dumped me out of frustration. I was “more married to that place than to her,” she said. And with that, she left. Afterwards, NASA became my life. I trained new astronauts in flight simulations. I was as close to being back in space as one could be. Then, on the 28th day of January 1987, my world was turned upside down. That day, the launch of the Challenger went horribly wrong.

OV-99, better known as the Shuttle Challenger, was the second Orbiter to be placed into service. It had a refitted body frame that had originally been built for testing. STS-51-L was to be the tenth flight of OV-99, and the 25th flight of the Orbiters. From the very start, something felt wrong about the launch. It had already been delayed seven times, twice for mechanical problems. Between T-zero and T+03 seconds, we saw increasingly thickening and darkening smoke from the aft field joint of the right Solid Rocket Booster, the white detachable booster that provides the thrust required to escape the Earth’s gravitational pull. “Something’s wrong,” a technician murmured, glancing up from the monitor.

The rest of the ground crew ceased all activities as they tried to comprehend the catastrophe unfolding before their eyes. The engineers knew immediately that the problem was with a seal on a joint. One of the rubber O-rings must have vaporized, causing the black smoke. Around T+70 seconds, the right Solid Rocket Booster tore free from the strut that connected it to the fuselage of the Shuttle. The SRB went out of control like a deflating balloon, swinging wildly about its upper strut. The technicians knew there was nothing that could be done. There were no ejection seats on the Challenger. Save for a miracle, the crew of OV-99 faced certain death.

Moments later we watched helplessly from the ground as white vapor bloomed from the large reddish-brown External Tank after being struck by the loose SRB. The radio circuit to the Shuttle crackled. We leaned closer to the speakers, hoping to hear a crewmember. “Uh oh,” was all we heard before the radio circuit went dead, giving way to a low hiss. Flames shot from the Challenger’s fuselage and the Orbiter exploded into pieces. I felt my knees weaken as I collapsed onto the spectator’s bench. I covered my face, trembling for those who perished and knowing that my dreams of returning to space had been dashed.

That night, I lay awake, replaying the sequence of events in my head. What if it had been me on that flight? Even in my fifties, I could not stomach the thought of

dying. Still, I felt the call of that vast expanse, the vacuum we call space, and knew that no matter what the risks, I was determined to return.

When I entered NASA's space program, I was a young man, still naive, but intrigued by the thought of exploring beyond the Earth. I believed I was invincible. Nothing could go wrong. Watching the enormous Saturn V booster rockets propel astronauts into space, hearing the heavy roar of the liquid hydrogen/oxygen engines, I believed that such a powerful thing was invulnerable, built to contradict the very forces of nature. I never fully appreciated the engineering feat it took, and so I placed my faith in the slide rule-wielding geeks at NASA. They assured us it would be safe. If NASA had the smartest people working for them, I believed, then their work would be inhumanly perfect. STS-51-L changed everything, shattering those beliefs, for all of us at NASA.

Eleven years have passed since that tragic day. I had almost given up all hopes of returning to space after STS-51-L and my "retired" status, but in 1998, John Glenn flew into space again, at the age of 77. If that old codger could go back, I knew I had a chance. I submitted my name and eagerly awaited the chance to go back. Determined, I started training hard. I hired a personal trainer. He threw out my stash of alcohol, but I managed to hide a few bottles.

A few months later, I got the call. NASA was interested in me again, interested in studying the effects of zero gravity on an older person. The fact that I had already been in space 30 years ago sweetened the deal for them. "Come to the Space Center," they said. "We want to refresh you on protocol." I managed a calm response, "Be there at 0600." Click.

I woke up the next morning with a blazing headache. Shit. What time is it? I slowly got up from my living room floor. What had I been doing? Oh right, celebrating my return. I noticed an empty flask on the floor. I glanced at my phone, 10 o'clock. I had eight new messages. All of them squawking something along the lines of, "Tom, where the hell are you? You're late!"

Two days later, I checked myself into the Betty Ford Center, rehabilitation center for the famous and infamous. Those first weeks were hell. They wanted us to "talk through our problems." I couldn't stand it. I wanted to scale the fences, the trees, escape from the Center, but I also knew that it was my last hope. I held onto my desire to get back to space - it was my motivation, like holding a biscuit in front of a hungry dog. I called in a few more favors at NASA, where they agreed to start my space training once I was "clean."

0230 EST // 1 February 2003

I'm seated at the controls of the Space Shuttle Columbia, preparing to reenter the Earth's atmosphere as we await confirmation from Ground Control. "Mission Control, OV-102 is ready for re-entry."

The "com" board comes alive, "OV-102, come on home."

I'm 71 years old, and I've made it back to space. As we strapped in, my thoughts flashed to the Reinforced Carbon-Carbon panels on the left wing. The ground team had made three separate requests for in-orbit images of the panels to determine the extent of the damage to the panels after being struck by a chunk of the external tank's insulation foam. Reinforced Carbon-Carbon...I quickly pushed the thought out of my mind to focus on the task of re-entry, after all, Mission Management Team decided that the debris strike was a non-issue.

At 0844, we approached Entry Interface. We were 400,000 feet above the Pacific Ocean, although I wasn't looking forward to being back on the surface. I wanted to remain in space, free of the constraints of gravity.

Streaking across the sky at Mach 22.5, the screen flashed a warning that four hydraulic sensors in the left wing were "off-scale low." That meant the sensor readings were below the minimum capacity. Whatever it was, it wasn't a good sign. I sensed the tension in the cabin mounting. The left wing had been struck by insulation foam during takeoff. As we approached the earth's atmosphere, the Columbia's wings glowed with heat at nearly 3,000 degrees Fahrenheit. Bill McCool, a former US Navy commander, piloted the Columbia into a roll, like a stunt plane doing a corkscrew, as we flew over Arizona and he decelerated the bird to Mach 20.9.

As we passed over Texas, the monitor flashed an angry red warning. Both pressure readings on the left main landing gear tires had been lost. The left tires must have disintegrated, I thought to myself. "How the hell are we going to land this bird without the landing gear?" Commander Rick Husband muttered. One by one, the Columbia's systems started to go down. I heard Payload Specialist Ilan Ramon starting to pray. Glowing ceramic tiles from the nose cone broke off and flew past the window. Our ship was disintegrating. I closed my eyes. Maybe I wouldn't have to return after all.

The light was blinding. The roar was deafening. Then nothing.