After returning from Miami I fell into the standard postflight depression every astronaut experiences. As Bob Overmyer once said, “Being an astronaut is a ride on the world’s biggest emotional roller-coaster. One day you’re in orbit and talking to presidents, the next day you don’t even have a reserved parking place.” I was way down in the don’t-have-a-parking-place dip. I felt certain it would be several years before I would have any shot at another flight. I was at the end of a long line. There were a hundred astronauts in the office. While I waited I would be assigned to one of the supporting roles of the business: working as a CAPCOM in MCC, evaluating software in SAIL, supporting payload development, or otherwise involved in another support function. While I appreciated the importance of the work, it was mundane compared with the exciting world in which mission-assigned crews lived. I had twice been a resident of that world and I knew. I didn’t want to fly a desk. The wordretirement was frequently on my mind. I knew Donna would welcome a decision to leave Houston. Every trip to the LCC roof was killing her. But, like the good Catholic wife she was, she would never put her feelings first. It would have to be my decision. Other TFNGs had already made theirs. Jim van Hoften, Pinky Nelson, Sally Ride, Dale Gardner, and Rick Hauck had all announced their intention to leave NASA, or had already done so. Unlike some of them, I didn’t have the offer of a high-paying civilian job setting a deadline. I had done no job search. I had no plans for a next life whenever it started, other than it would start in Albuquerque. Donna’s dad had passed away and left her the home in which she had grown up. That home and the Rocky Mountain West were magnets drawing us back.

Though there was no job to force a retirement decision, there were other factors pointing me to the NASA exit sign. NASA management was still an issue. After Abbey’s departure, Don Puddy had been assigned to fill the FCOD position, an announcement that had been greeted in the astronaut office with stunned silence. Like Abbey, Don had gotten his start at NASA as an MCC controller in the Apollo program and ultimately served as a flight director forApollo 16. He also served as a flight director for all three Skylab missions and the Apollo-Soyuz mission, and he was the reentry flight director for STS-1. Don was an exceptionally talented engineer and manager. But he wasn’t a pilot. No matter how disliked Abbey may have been, we had all appreciated his four thousand hours of cockpit time. He had a personal appreciation of the issues of high-performance flight. We worried Puddy’s lack of flying experience would seriously hobble him in his ability to handle astronaut concerns about shuttle nose-wheel steering, brakes, runway barriers, drag chutes, auto-land, and the many other pilot-specific issues surrounding shuttle operations. If there was ever a position that needed to be filled by an astronaut, it was chief of flight crew operations. Don

Puddy's appointment made us suspicious that NASA's senior leadership still didn't want to deal directly with astronauts. Dick Covey told us a story that supported those suspicions. He had been in a meeting with Aaron Cohen, the JSC director, in which Cohen had polled his senior staff on whether or not the FCOD position should be filled by an astronaut, and the unanimous answer had been yes. The fact that an astronaut had not been assigned was proof to us that HQ had overruled Cohen. Our discontent with Puddy's assignment was so widely known that a week after the announcement, Aaron Cohen took the unprecedented step of coming to the astronaut office to curtly tell us the decision had been entirely his, without any HQ input. Nobody believed it. He then went on to list Puddy's attributes as a great manager, something that nobody was questioning. Puddy was exceptional. He just wasn't the best man for the job. An astronaut was.

I was tired of the us versus them.Can't we all just get along? The frustrations were a constant topic at the coffeepot and over '38 intercoms. When a news article appeared on the B-board about NASA Administrator James Fletcher's planned departure at the end of President Reagan's second term, an astronaut graffitied it with the commentTwo years too late.

While Puddy's selection was a disappointment to astronauts, he instituted one critically important change—empowerment of the position of chief of astronauts. Shortly into Puddy's tenure, Dan Brandenstein unequivocally informed us that all flight assignments would originate with him and would then be successively approved or vetoed by Puddy, the JSC Director, Dick Truly, and the NASA administrator. Amazing! Someone in an astronaut leadership position was (gasp)…communicating with the astronaut corps! I was certain that the moon was in the Seventh House, Jupiter was aligned with Mars, and winged-swine were in the JSC treetops. If Abbey and Young had been present, they might have fainted. It had taken eleven freakin' years to hear this career-essential information—something John and George should have given us on day one.

Regardless of Dan's welcome leadership, there were other concerns. I could invest a couple years of my life working toward a third flight, only to have the rug pulled out from under me when a schedule change canceled my mission or another shuttle disaster interrupted the program or my health became an issue. In my last physical exam the cardiologist had seen an anomalous blip on the EKG traces. "It's no big deal, Mike. I'm not going to require you to fly on a waiver." But what if the blip became something serious enough to ground me?

I also considered what type of mission I might draw. I craved a spacewalk, but so did every other MS. Instead of an EVA, I might find myself on a Spacelab mission butchering mice and cleaning shit from monkey cages. The thought of waiting around a couple years only to end up as a space zoo janitor wasn't appealing.

And then there was the toll my career was taking on Donna. Though she wasn't about to use it against me, I was enough of a husband to at least think about it. And I was still learning about that burden. At a party I overheard a TFNG wife comment about the unaccompanied status of theChallenger widows. "There aren't a lot of men who would feel comfortable stepping into a dead astronaut's shoes." The observation hit me like a fist. I had never considered just how different the burdens of anastronaut widow were. I knew men. There weren't a lot of us capable of stepping into the shadow of a national hero—sure to wilt more than just an ego. Years later, at an astronaut reunion party, a TFNG widow told me, "I've dated, but nothing ever really develops." Men just couldn't deal with her deceased husband's astronaut title, she explained.

The unknowns, the fear, the burden on the family…they were all pointing to the NASA JSC front gate—time to drive out of it forever. I was within days of telling Brandenstein of my decision when the phone rang. It was Don Puddy. I was being assigned to another DOD mission, STS-36, only a year away. My sentence as an unassigned astronaut had lasted a month.

Puddy's call put me on a 6-G pullout from the bottom loop of the astronaut roller coaster. I now soared skyward. Every doubt, every fear about staying at NASA was gone. Within a year, I would once again be Prime Crew. When I told Donna the news, she smiled, but her eyes said volumes more. My announcement gut-shot her. I knew she wanted out. But she took it like a loyal soldier. She would be there for me no matter what.

Only a single aspect of STS-36 would ultimately be declassified, our orbit inclination.Atlantis would carry us into an orbit tilted 62 degrees to the equator, the highest inclined orbit ever flown by humans (it still remains the record). This wasn't the polar orbit planned for STS-62A (that would have been nearly a 90-degree inclination), but it meant we would get a view of more of the Earth's surface than any astronauts in history. Our orbit would almost reach the Arctic and Antarctic circles.

I would be one of two TFNGs on the mission. The other, J. O. Creighton (owner of theSin Ship ski boat and Corvette my children found so alluring) would be the mission CDR. Like Hoot, J.O. was an exceptional pilot and leader. John Casper (class of 1984) would be the PLT. The other two MSes on the mission would be Dave Hilmers (class of 1980) and Pierre Thuot (class of 1985). In spite of his wimpy-sounding French name, Pierre was all-American. His astronaut nickname was Pepe.

Because our crew was at the back of the training line, Dave Hilmers and I had time to serve as the family escorts for STS-30. For the first time in my career, I was now the potential "escort into widowhood." The assignment allowed me another glimpse into the world of the astronaut spouse. At one of the beach house gatherings, Kirby Thagard broke into tears as she told the others that June Scobee had called to wish

them all good luck. Just the name of aChallenger widow was enough to sheen the eyes of many of the women…at least when their own husbands were hours from launch.

Our days in Florida with the families were pleasant. Unlike some spouses who had earned reputations for treating the family escorts as personal butlers, the STS-30 wives were easy to work with. Because the mission CDR, Dave Walker, and one of the MSes, Mary Cleave, were single, there were only three spouses in our care: Kirby Thagard, Mary Jo Grabe, and Dee Lee. They adopted Dave and me into their extended families and we were guests at their numerous parties and other functions.

The crew was also a pleasure to work with. Mary Cleave was great fun. Now forty-two years old, she had a name tag on her flight suit reading,Mary Cleave—PMS Princess. She was another woman who wore the feminist mantle very lightly. When NASA HQ received a complaint from the California Democratic Party Women's Caucus about photos of Mary preparing a shuttle meal during her first flight (while the men were photographed doing technical work), Mary had laughed it off, saying, "I do shuttle windows and toilets, too." When the STS-30 mission slipped six days and the crew grew bored with TV, she requested a list of movies from a Cocoa Beach video-rental business and asked an astronaut to pick up her selections. As gags for the men on the crew, her choices includedHollywood Chain Saw Hookers andAll Star Topless Arm Wrestling.

On the morning of STS-30's second launch attempt, May 4, 1989, Dave and I met with astronauts Bryan O'Connor and Greg Harbaugh. Bryan and Greg were at KSC supporting the mission and would also be on the LCC roof during the launch and available to help with the families ifAtlantis was lost. Over breakfast the four of us reviewed NASA's contingency procedures: who would stand next to which family on the LCC roof, where the families would be temporarily gathered in the event of disaster, who would drive them to the KSC landing strip for their plane rides back to Houston. The wives had already been told to have their bags packed and ready to go before they were picked up for the trip to the LCC. This arrangement ensured they would not have to return to their condos and into a press feeding frenzy if disaster struck. A NASA official could retrieve the packed bags and bring them to the families at the KSC landing strip. But the procedure also meant the wives would have to unpack if the launch was scrubbed, and many wives had gone through the pack/unpack cycle multiple times for that reason. It was a pain but everybody understood the need.

Our breakfast table talk was devoid of emotion. Though we were planning our response to the death of friends and the widowing of their wives, our conversation was clinical and detached. We could have been talking about the logistics of a fishing trip. A review of the family escort procedures was just one more thing among thousands that had to be done as part of a shuttle launch. As I sipped my coffee, I thought of Donna's pre–STS-41D observation. It is, indeed, a strange business that plans so

thoroughly for helping a woman into widowhood.

AsAtlantis came out of the T-9 minute hold, Dave and I escorted the families from an LCC office to the roof. In the hallway we passed drawings done by the children of astronauts from prior missions. To keep the youngest kids of the families entertained during the interminable wait of a countdown, the LCC team provided poster board on which the children were encouraged to draw. After each mission that poster board was framed and hung in the hallway. The drawings served as another “widows and orphans” message for the team, a reminder of what was at stake.

On the walk to the roof the wives were talkative and it would have been easy to believe they were relaxed, but a glance into their eyes revealed otherwise. They were too large and darted too quickly. I had no doubt that the STS-41D and STS-27 escorts had seen the same look in Donna’s eyes.

Steel folding chairs were set out on the roof but everybody was too nervous to sit. Portable speakers had also been deployed so the countdown could be monitored. Behind us, the 500-foot-high Vertical Assembly Building rose like a white cliff. In front of us was the route used by the 8-million-pound tracked crawlers to carry the stacked shuttles to their launch sites. The gravel road stretched eastward, its tan color bisecting the otherwise uniform green of the Florida lowlands. Three miles away the soaring lightning rod of Pad 39B, designed to protect space shuttles from lightning strikes, provided a sight line toAtlantis.

A broken layer of rainless clouds threatened a delay. While they posed no problem for an ascending shuttle, if an RTLS abort became necessary they would hide the runway and make the CDR’s landing task more difficult. The countdown would be held at T-5 minutes until the weather improved. As I had done in the cockpit so many times, I now prayed fiercely for the count to resume. There was only one way to get the terror behind us…launch.

Dave, Greg, Bryan, and I circulated among the families translating the technobabble on the speakers. As word came that the weather was a go and the count was resuming, we faded to the rear of the group. This was a sacred family moment. The wives and the others needed to be alone with their thoughts and prayers, not feeling obligated to talk to us.

T-4 minutes. The two mothers, Kirby Thagard and Mary Jo Grabe, squeezed their children to their sides.

T-3 minutes. Several of the family members bowed their heads and closed their eyes, their interlaced fingers drawn tightly to their mouths. I was certain they were in prayer…as was I.

T-2 minutes. I could imagine the scene in the cockpit—the crew closing their helmet visors, cinching harnesses, exchanging good luck handshakes.

T-1 minute. The families were mute. One of the wives was shivering.

T-30 seconds. I looked at the kids and wondered how they would react to a disaster.God, keep the crew safe! It wasn't so much my prayer, as my demand.

The NASA voice took up the famous cadence. "T-minus 9…8…7…go for main engine start…6…main engine start…5…"

A bright flash signaled SSME start. It was a sight that instantly brought excited shouts. Somebody clapped. The tension of the countdown had been broken and everybody felt a momentary, if premature, relief.

At SRB ignitionAtlantis rose on promethean pillars of fire. The scene had a dreamlike quality to it. A 4½-million-pound machine was being borne upward on twin flames 1,000 feet long, and yet, there was no sound. That was being delayed fifteen seconds by the distance. The first noise to roll over us was the animal-like shriek of the SSMEs, which generated a new round of exclamations from the families. Six seconds later the SRB-generated noise came, a sound that made every listener wonder if the air itself was being tortured. It began as a rolling thunder, then quickly increased in decibel to a violent, ragged crackle. Birds jerked in midflight confusion. The noise echoed off the VAB wall and came back to shudder the LCC roof. From the parking lot below came the sound of car alarms, activated by the vibrations.

Atlantisentered the clouds and those gave momentary form to the shock waves of the SRB exhaust. They raced outward like the sonic waves of explosions. At booster burnout and separation the families cheered loudly.Challenger had forever stigmatized the SRBs and everybody was glad to see them, and the threat they represented, tumbling away.

With the twin rockets gone, the blue-white trinity of the SSMEs was all that marked the streaking machine. That fire slowly faded and within three minutes there was no sight or sound ofAtlantis. Only the SRB smoke remained as a sign of her launch. That effluent had seeded the air so thoroughly with particulate that a cloud grew from it and showered the launchpad with an acid rain.

Now everybody was talking. The wives wiped tears and hugged one another. Through the excited chatter I kept an ear tuned to the speakers. I wouldn't be totally relieved until I heard the MECO call. At eight and a half minutes it came and I closed my eyes in prayer and thanked God there were no widows on that roof.

Back in the LCC, I called Donna to tell her of the successful launch and was shocked to

find her sobbing in near hysteria. “Mike, I can’t do it! I just can’t do it again.” She had watched the launch on TV and it had served as a terrifying reminder of what awaited her. She would have to make that T-9 minute walk again, probably multiple times, given my luck. For the first time in my life I was hearing my wife put herself first. But I wasn’t going to step away from STS-36. That would never happen. I calmed her. “It’ll be okay, Donna. Just this one more time and then it’ll be over.” I was confident she would rally. There were nine months until STS-36 would fly, which I hoped would give her enough time to shore up her emotional reserves.

But only six weeks later those reserves took another hit. We awoke on Father’s Day to news that TFNG Dave Griggs had died the day before in the crash of a WWII aircraft while practicing for an air show. While his death was unrelated to shuttle operations, it was another grim reminder of the business of flying. Dave had left a wife, Karen, and two teenage daughters. One more time Donna and I drove to the home of a woman widowed in the prime of her life. One more time I watched Donna enter a sobbing clinch with a grieving friend.

After a service at St. Paul’s Catholic Church, a group of us rendezvoused at the Outpost to continue Dave’s wake. Kathy Thornton, a fellow crewmember on what would have been Dave’s second shuttle mission, STS-33, brought one of the flower wreaths from the church and dropped it on the bar. With tears wetting her cheeks she sipped beer and remembered Dave with stories of their mission training. As I watched her, I wondered how many more tears would be shed for dead astronauts in this smoky dump of a bar. The sky was our Siren and no matter how we answered her call, in a plane or a rocket ship, she was always ready to kill us.

Though my assignment to STS-36 had buried all thoughts of immediate retirement, I continued to debate the course of my life after the mission was complete. Time and again I would resolve to tell Mike Coats (now the acting chief while Brandenstein was in mission training) that I would be resigning after STS-36, only to walk into something that would shatter that resolve. On one occasion it was an astronaut party at a local bar. Word spread through the crowd that the Long Duration Exposure Facility (LDEF), a large satellite launched beforeChallenger —which was to be retrieved and returned to Earth on STS-32—was seconds from being visible in the overhead twilight. We made a frantic dash for the doors. The bouncers and some redneck patrons interpreted this as the sign of a big fight moving into the parking lot. Imagine their surprise when they rushed outside to find thirty astronauts standing with their necks craned and fingers pointing at a bright point of light sailing overhead. I looked to my left at Bonnie Dunbar. In a month she would be the mission specialist atColumbia’s robot arm controls, grabbing LDEF from space.God, what an incredible business, I thought.How can I ever walk away from it?

The same question arose at another social function, this one for a new group of astronaut interviewees. In their presence, I traveled through a time portal. A dozen

years earlier I had been one of these eager young men, my eyes bright with the hope that I would miraculously make the cut, that I would be named an astronaut. They came to me, as I had gone to the vets in 1977, to ask what it was like to ride a rocket, what did the Earth look like from two hundred miles altitude? I could see it in their faces and hear it in their voices. They had been imprinted with a passion for spaceflight, just as I had been. How could I ever quiet that passion? How could I ever walk away from NASA?

I began the journey on December 18, 1989. After most astronauts had left for the day, I walked into Mike Coats's office and told him I was going to retire from NASA and the air force after STS-36. It was the most difficult decision of my life. There wasn't a eureka moment that had finally pushed me into it. Rather, it was a culmination of twelve years of "moments." Donna's telephone breakdown still weighed on me. My tour on the LCC roof with the STS-30 wives gave me a much better sense of what my launches were doing to her. And it wasn't just Donna's fear. My own fear had become a wearisome burden. How many times could I make the trip and survive?

The fear, the unknowns of the business, my doubts about NASA's management…all of it had conspired to propel me down the hall to Mike. But, even as I stood in front of him, I knew my decision was perilously balanced. I was like the circus acrobat tottering in a chair on top of a pole on top of a ball. The weight of a dust mote falling on my shoulder would be enough to send me toppling. If Mike had questioned my decision in the slightest manner—had he just said, "Are you sure?"—I suspect I would have immediately retracted my statement and walked away. But he didn't. As he continually flipped his pen, he confided to me that he had already made the same decision. He had told Puddy he would be leaving after his next flight. He probably heard me exhale. His decision endorsed my own. He didn't ask for an explanation, but I provided one. When I admitted that fear had a lot to do with it, he replied that it had been a huge factor for him, too—his own fear as well as Diane's. "That LCC roof wait is a torture."There should be a monument to astronaut wives, I thought.It should feature the LCC with the countdown clock at T-9 minutes.

I left Mike's office and called home. "I did it, Donna. I just told Coats we would be leaving after the mission." For a moment, Donna was silent. I had told her that morning of my retirement intentions, but I knew she didn't believe me. I had changed my mind too many times before. She understood the agony I was going through. She had seen the videos of me as a young teen running toward a parachuting coffee-can capsule. She knew the significance of my finger-wornConquest of Space book. She had boxes of space memorabilia from my youth. She finally spoke. "Mike, I'm so happy. Thank you. I know you'll second-guess this decision to death, but it'll be okay. It'll all work out for the best. God has His plan." As I hung up the phone, I knew exactly what she was doing…lighting a candle of thanksgiving at her home shrine.