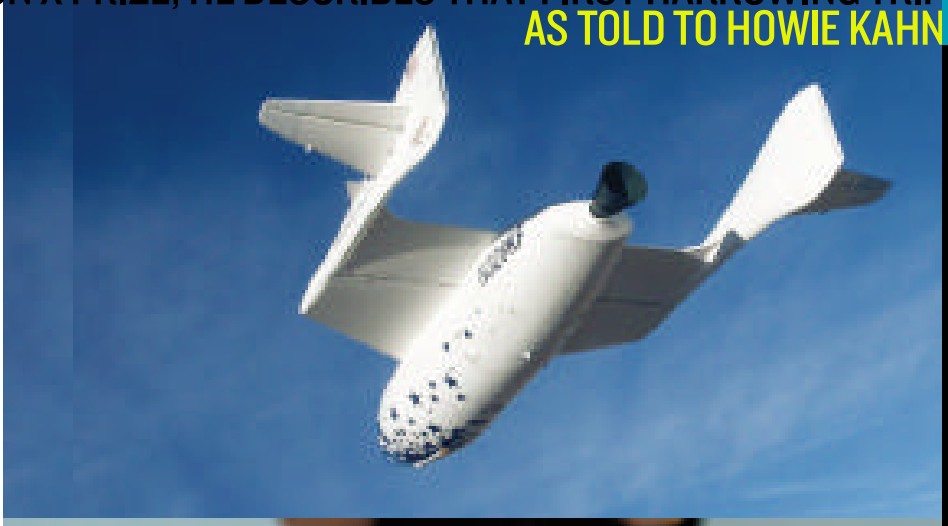
I, SPACEMAN

IN JUNE, MIKE MELVILL BECAME THE FIRST MAN TO FLY A CIVILIAN ROCKET INTO SPACE. AS HIS TEAM RALLIES THIS MONTH TO REPEAT THE FEAT AND CLAIM THE $10 MILLION X PRIZE, HE DESCRIBES THAT FIRST HARROWING TRIP

AS TOLD TO HOWIE KAHN



* MIKE MELVILL, 63, celebrates a successful mission on June 21. Top, SpaceShipOne glides in for a landing.

FROM TOP: COURTESY OF SCAIFE COMMUNICATIONS; AP/WIDE WORLD PHOTOS/REED SAXTON

THE WIND HAD BLOWN a howling gale all night, and we heard the hangar doors rattling, and I felt there'd be no chance we'd fly in the morning. But somebody was smiling on us, because as the sun started to pop up, the wind went to a complete calm. Huge crowds were out there lining the taxiway in all directions. I waved, and these guys were all screaming my name, yelling, "Go, Mike, go!"

We'd been working on this thing for about four years now, hard. Designing the two planes, the one that carried me up there—the White Knight—and SpaceShipOne, which hangs underneath. We did a preflight briefing, making sure nobody's going to make a mistake. We had to go over all the eventualities if something didn't work. That was stressful. You hear them discussing what might happen if something goes wrong. That's a little concerning, because they're talking about you being dead.

I just wore a normal flight suit and parachute with no special protection. Just my normal flight boots, same helmet I use all the time, same oxygen mask. We don't wear a pressure suit like the NASA astronauts do, which would protect you in the event that a window broke. We just bet on the structure of our vehicle. The airplane itself is our pressure suit. I was thinking about the huge speeds and enormous altitudes, wondering if I'd ever get the chance to do this again.

The flight up was lonely. I think they thought it best to let me concentrate, but actually I'd have loved to talk to somebody, because it was so quiet. Then came 50,000 feet. The final countdown starts, and you realize, Oh boy, this is the big one. The spaceship drops off the hooks, there's this tremendous sinking feeling, and your heart's in your mouth.

I armed and fired the motor as quickly as I could. The three-G bang was really noticeable. All my concentration went into trying to guide the thing straight up. There are all kinds of winds blowing in different directions, so as you start penetrating the atmosphere, the spaceship is deflected off course here and there. The space shuttle makes all those corrections with a computer. We don't. Our control systems—my stick and rudders—are hooked to the surfaces out there with pushrods and cables, much like a Piper Cub. It's a simple lightweight airplane, and the only thing that guides it is me looking at a display: Turn left, turn right, pitch up, or pitch down. I was shocked at how difficult it was to keep that thing pointed straight up. My shoulders and arms ached—I don't know why, because there's not much force involved. I think it was tension.

At the pinnacle of the climb, an antenna got burned up. The radio from mission control was very weak, and I couldn't hear well. Doug Shane, our mission controller, was calling and calling, and I wasn't answering. When I finally came to rest in space, I was upside-down and pointing the other antenna at them, so I was able to hear Doug's desperate voice saying, "Mike, are you okay?" And I said, "Yeah, I'm fine. Everything's cool." I was only off-line for a few seconds, but it was long enough that they thought something drastic had happened.

Nearing the top, the engine was starting to run out. It runs on liquid nitrous oxide, which is really laughing gas, and it's all gone in about seventy seconds. Right about the time I needed to put a little bit of trim into the airplane—trim moves the horizontal tail to position the plane—the trim motor on the right side overheated. It's thermally protected inside, and it shut itself down. Scared the heck out of me. I knew I couldn't reenter with that setting. I would not have survived. I turned off the main system, turned on the backup, and tried to run the trim back to where it should be. I was concentrating on fixing it and getting the airplane stable. Then the backup system overheated.

I knew something was wrong and hoped that it would fix itself. I'd had a little idea that I hadn't told anyone. My plan was to grab M&M's I had poured into a pocket on the left shoulder of my flight suit to see if they would stay up in the air. I could see the G meter was sitting at zero. Everything in there was floating around: bits of dust, my oxygen hoses. So I reached in and grabbed a handful. I put them in front of my face, opened my hand, and they just stayed there spinning around and glinting in the sunlight. It was the most amazing thing I've ever seen in my life. They were exactly what I needed. The time it took to do that gave the internal thermal protection and the emergency backup system time to reset, and I thought, Okay, now I can survive.

I knew there was nobody out there who could help me. I had this very lonely feeling. But the view was so exciting, and watching the M&M's spinning around was kind of funny, and I was having a ball, really, even though I knew I was in serious danger. Looking out the top, the sky is jet-black. Out the bottom, you've got the beautiful sight of the earth. Only guys who've been in the shuttle or to the moon know what I'm talking about.

With the trim anomaly, I wasn't about to use it again, and ground control agreed: "Don't touch the trim. Just fly it the way it is." If that trim had not been close to the center, that would not have been good. But I'm good at landing, so I wasn't worried.

It was just a glider at this point, no engine running. When my friend Chuck Coleman arrived on my wing, I could hear the engine on his airplane, because it's very quiet in the spaceship. I came over the top of the runway at 9,000 feet, made one 360-degree turn, and lost all that altitude. As we turned, I saw the runway for the first time through those little windows, and my heart just skipped. I thought, Wow, I got it made now. Chuck confirmed that the landing gear was down, then started counting the feet to the ground. We made a very smooth landing, one of the best we've done. Chuck was just elated. I didn't get as high as I'd hoped. We were hoping to go to 360,000 feet. We went only to just barely 329,000.

"COMING DOWN, AT ONE POINT I WEIGHED 884 POUNDS. YOUR HEART HAS TO PUMP VERY HARD TO KEEP OXYGEN IN YOUR BRAIN. YOU STRAIN YOUR STOMACH AND LEG MUSCLES TO PREVENT BLOOD RUNNING INTO YOUR LEGS."

* MELVILL'S PLANE gets a lift from White Knight. The two cost nearly $30 million.

On the descent, we were 2,000 knots of true airspeed, considerably faster than a rifle bullet, when I first started feeling the atmosphere. At that point, you've got to do everything right. If you put the stick in the wrong place, there'd be nothing to prevent you from being disintegrated.

The roaring, tearing, ripping hurricane sound of the air blowing by the vehicle is pretty intimidating. There's a sort of high-frequency shuddering. There's not much you can do. You just try to keep the controls centered and let it fall—I was very worried that something would come off, come apart, or get so hot that I'd get a blast of air into the cockpit.

I was breathing hard. If you're pulling a lot of G's, you've gotta be sucking in a lot of air. Coming down, at one point I weighed 884 pounds. Your heart has to pump very hard to keep your bloodstream working and keep oxygen in your brain. You strain your stomach and leg muscles to try to prevent the blood from running down into your legs.

We're scheduled to go back up on September 29 and again four or five days later. We haven't picked a pilot yet. If I'm not flying the spaceship this time, I'll be flying the extra and calling out the wheel height—just like Chuck did for me. I don't have any doubt that we're going to win the X Prize. We're dead serious. If I were offered the chance to go up again, I'd go in a second. But I don't think it'll happen. It's time to put a younger guy in there. They've trained every bit as hard as I have, and I'm going to push for one of them to fly the first X Prize flight and the other to fly the second. But if I got a chance to go later, I'd jump at it, you can bet. Just to see that again: to watch the blue sky turn to black, to look down at the incredibly beautiful earth we live on.

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