

To Infinity, and Beyond!

Last summer, I got a Golden Ticket. I was interning at NASA's Kennedy Space Center, and I was one of the few that received a car pass for the last space shuttle launch *ever*. That meant that I got to bring as many people as would fit in my car to watch the launch, unobstructed, from just 6 miles away. The lucky passengers were my parents, my brother, my aunt, and my cousins Ryan and Matt. The day before the launch, however, things were not looking promising. The weather forecast predicted rain, which could cause the launch to be delayed, or "scrubbed".

The green light for fueling was announced at 1:30 a.m., giving us just enough time for a quick nap. Thousands of spectators would be making the same commute, so we had to leave by 7 a.m. to stake out our spot. In bumper-to-bumper traffic, we passed a field of solar panels. The stereotype is that the microwave and freeze-dried ice cream were NASA's greatest contributions to Americans, but in reality every \$1 of taxpayer money that goes into NASA returns \$8 of benefit to our economy. From sustainable energy to water and waste management to MRI and dialysis, many technologies have benefitted tremendously from our space program. Your laptop and your cellphone? NASA pioneered the computers and satellites that keep them working.

On the way to the viewing site, I gave my family an impromptu tour of the place that had become a second home to me. The building where I worked was also where the astronauts lived before launch and where parts of the Apollo rockets were built. I was walking in the footsteps of some of the most brave and brilliant people in history, and every day I was learning from incredible men and women. There were my mentors, Luke and Michele; Annie, who was just as willing to show me her work as invite me to dinner; Barry, who would take me on "trips of opportunity" to go see whatever there was to see; Ron, who made space suits all his career; and Jose, who always told me if something was going on in the Space Station Processing Facility. And of course, there were the astronauts. Mission Specialist Sandy Magnus, one of the astronauts on the final shuttle mission, walked past a mob of reporters to talk to me and another intern. Mission Specialist Dottie Metcalf-Lindenberger had spoken to my high school class, and when I emailed her about my internship she met with me for Starbucks. These incredibly passionate men and women were so willing to share their work with me. Rather than being in the shadow of giants, I was standing on their shoulders.

Finally, we parked and set up camp. My dad set-up his camera, my brother napped, and my mom hung up her rosary to bring clear skies and a safe journey for the astronauts. Ryan, Matt, and I explored while I told them about the future of NASA. NASA is currently assisting private companies in developing the technology to send cargo and astronauts to the Space Station and beyond. In fact, in a few weeks the SpaceX Dragon capsule will be docking to deliver cargo to the Station. In the coming years, commercial space ships could take astronauts as far as the moon and Mars. I asked 9-year-old Matt, "Wouldn't it be cool if we were both astronauts on Mars together?" He replied, "No, *you're* going to the moon. *I'm* going to Mars."

With minutes to go, the Launch Director told the crew, "Good luck, Godspeed, and have a little fun up there." T-6...5...4... We held our breath. 3...2...1... A cloud of

smoke, and Atlantis was flying, a trail of fire behind her. The vibration shook my entire body. I didn't take my eyes off Atlantis until she disappeared into the clouds. There was not a dry eye in the crowd. Less than 10 minutes later, Atlantis was orbiting Earth.

There are rare moments in life when you get to bear witness to history. Rarer still are those marked by hope and triumph rather than fear and war. Astronaut Dottie told me that one of her favorite things about space was seeing all the places she loved in one fell swoop: where she was born, where she went to school, where she lived now. It made me realize that the further we get from Earth, the smaller our differences become. The residents of the Space Station see 16 sunrises and sunsets every day, but not the borders of countries. The Space Station was built by the US, Russia, Japan, and Italy – countries that have spent much of the last century staring at each other down the barrels of guns, now cooperating in the name of science. There are many government programs that richly deserve our tax dollars, but NASA's mission is both scientific and inspirational. Next time you look at the stars, remember there are people living up there *right now*. Remember what incredible things we can accomplish when we cooperate. Space exploration is the greatest triumph of the human spirit: we are not satisfied with infinity; we must go beyond.