

Dan Barry's First Shuttle Flight



Dan Barry is a NASA Shuttle Astronaut who took his first flying lesson with the Soaring Tigers (named the Soaring Society of Princeton University at the time). This is Dan's personal account of his STS-72 Space Shuttle Flight

Flying on the shuttle was EVEN BETTER than I expected! As we counted down to T-15 minutes the excitement on-board was building, just as I imagine it was outside. When we encountered the comm problem that delayed the launch a little we all had the thought "how am I going to explain THIS to all those people who braved the weather to get here tonight?" Fortunately, the problems cleared and we were all set to go. The three main engines light 6 seconds before the two boosters to give the computers a chance to abort if the mains are not working right. When the mains lit, I started counting-- when I got to 7 I thought, "rats, a pad abort" and just then "KABLAM!!" the boosters lit. I guess I was counting a little fast.

During ascent there is a sense of being surrounded by a TREMENDOUS amount of power. The entire structure of the shuttle rattles and shakes, it feels almost alive with vibrations. Eight and a half minutes to orbit-- most observers were able to see us nearly all the way. As soon as the engines shut down, we were all floating. NEAT! It felt just like training in the KC-135 parabolic flying jet except it lasted longer than 30 seconds.

My first view of the earth was as we were crossing Africa, about 10 minutes after launch. SPECTACULAR! The edge of the atmosphere has multiple layers of blue. Sunrises and sunsets (every 90 minutes you see one of each) occur very fast as we fly at 5 miles a second (about 18000 mph). They have a red band at the earth surface, a white band on top of the red, and blue on top of the white. Very patriotic. The depth of color is hard to describe.

The best I can do is compare it to gemstone colors-- rubies, emeralds, and diamonds. The oceans range from turquoise to midnight blue, deserts and beaches are the tan of light sandpaper, forests are emerald green, the clouds are so white they are hard to look at with the sun overhead. Night passes are beautiful too. There are millions of stars and they really don't twinkle. One clear night pass we saw the entire east coast, Miami to Boston, in a single view. We could identify all the large cities including Atlanta, Baltimore, New York, and Boston. We also saw Houston and Chicago in a single view at night. We would have seen Detroit too I think but it was probably cloudy..... Waved to everyone.

The spacewalk was very successful as we completed all our normal tasks, all the extra tasks, had time to admire the view and still came in a few minutes early. The best moment of the entire flight was during the spacewalk when Koichi lifted me on the robot arm high above the shuttle's payload bay. I was about 30 feet over the bay looking down on the shuttle with my friends waving out the overhead windows and the entire earth below.

WOW!

The entry was also incredible. As we hit the atmosphere at Mach 25, we were surrounded by a grey fog. Then orange fireballs started popping off the tail, shaking the whole orbiter. Eventually,

the gray fog turned a bright orange surrounding us and spooky neon blue St. Elmo's fire ran around inside the window frames, between the multiple panes. The orbiter shook and bumped as we penetrated density gradients in the high atmosphere. We trailed a plasma plume that was seen from Hawaii to Florida and stretched from horizon-to-horizon. Our families heard the characteristic double sonic boom as we curled onto final approach. The view of the runway out the window is neat because the runway is lit by xenon lights since the orbiter has no lights of its own. The approach is a STEEP descent angle of 18 degrees (airliners descend to the runway at a 3 degree angle). A smooth touchdown and we were home.

Well, almost. We flew back to Houston with our families on a NASA plane the morning after landing. President Clinton was there to greet us at the bottom of the stairs as we got off the plane. We said hi to the president, thanked the folks who came to greet our return, and headed home. We arrived at the house to find the yard decorated with signs, balloons, and flags from our neighbors saying WELCOME HOME!

It was a great trip. I'm ready for the next one! Dan