

Last chance to view a Space Shuttle launch

by Donald F. Robertson

I've spent a lifetime studying and writing about spaceflight but ironically until this year I had never actually seen a Space Shuttle launch or, indeed, any large rocket rise into the sky.

Following a diagnosis of cancer, chemotherapy treatment and recovery, I determined to make the most of whatever remained of my life. I joined a long-term scientific study intended to improve outcomes for other victims of cancer and, within the constraints imposed by a day job, I redoubled my space writing. I resumed dancing. At the age 50 I also took up flying trapeze and rock climbing! And I determined to finally fulfill the long-delayed dream of witnessing a Space Shuttle launch.

Successfully covering a Shuttle launch can be a tough proposition. The published schedule is little better than fiction — and is subject to both the whims of technology

and nature.

It took the impending end of the Shuttle programme and two abortive tries. By the third attempt I felt like a member of a Shuttle launch crew must feel, but STS-132 had a relatively stable launch date while the rest of the schedule was in disarray over a set of scientific magnets.

With only three opportunities remaining at the time — or possibly four if NASA gained permission to launch the *Atlantis* stack prepared to rescue the final Shuttle crew — it was now or never.

I took a deep breath, and committed to non-refundable tickets. With a smooth countdown in the news, I boarded a plane for Orlando, Florida, and met *Spaceflight*

Atlantis the day before launch.



Viewpoint

Society members and readers of *Spaceflight* are invited to submit short articles providing a more personal viewpoint on current or past space events. Articles should be no longer than 2000 words and preferably include one or more hi-resolution photographs. There is no guarantee of publication and the Editor reserves the right to edit submissions. Please send article and pictures as attachments to: sf@bis-spaceflight.com and write 'Viewpoint + article title' in the subject line.



photographer Joel Powell at the airport.

First view

From the end of the crawler pathway just before it ramps up to the launch pad, the Shuttle stack squats almost invisible. It is still surrounded by the naval grey steel girders and panels of the rotating service structure. The orange nose of the External Tank and the tips of the Solid Rocket Boosters peak above the structure and the engines are just visible in the shadows below. Distant amplified voices echo around the pad.

A forest of cameras and people stand behind what NASA's press wrangler calls 'the invisible line', an imaginary barrier we are told not to cross. We wait for most of an hour. The humid heat is brutal. As an honorary Englishman — I am working for a 'foreign publication' and the powers that be at NASA have decided to treat me therefore as a 'foreign national' — I find myself thinking of mad dogs.

Them without warning or sound, the rotating service structure moves. Bit by bit, almost imperceptible bit, *Atlantis* is unveiled.

In person, the stack seems narrower than I expected, taller. Massive. It is hard to believe the well-used and scuffed orbiter will soon be in space — maybe for the last time.

Just as our wrangler is trying to herd journalistic cats back into buses, a man drives a vintage automobile to the other side of the invisible line so that we can photograph it in front of the Shuttle. "Thanks a lot!" says the wrangler.



Media celebrate the final scheduled launch of Shuttle Atlantis as the orbiter is unveiled to the heavens above on 13 May 2010.

Crew walkout

The buses drop us in a wide, industrial alley between two large buildings, ugly as only mid-twentieth century structures can be. People holding giant still and TV cameras stand on A-frame ladders at the front of the crowd; NASA employees and print journalists stand on the tarmac at the back, grumbling at the photographers.

The traditional silver Airstream 'Astrovan' — which replaced the smaller Apollo-era van in 1984 as NASA flew larger crews during operational Shuttle flights — sits flanked by a police cruiser and an armoured car. Two soldiers with menacing guns chat casually near the cruiser.

Twice, members of the astronaut corps in their blue coveralls walk down the alley toward the car park beyond, ignoring the press: it is not their day, however. A helicopter orbits overhead.

The crowd stirs. Six astronauts in bright orange escape suits troop in front of the van and pause to smile and wave at the crowd. They look like ordinary middle-aged guys you might meet at a suburban bar. A woman nearby tells a friend she thinks one of them is cute. The astronauts smartly turn and climb into their vehicle.

The silver van and its escort move out of the alley, and we head back to our buses, having witnessed a pre-launch tradition stretching back to the 1960s but so soon to

disappear.

Countdown and launch

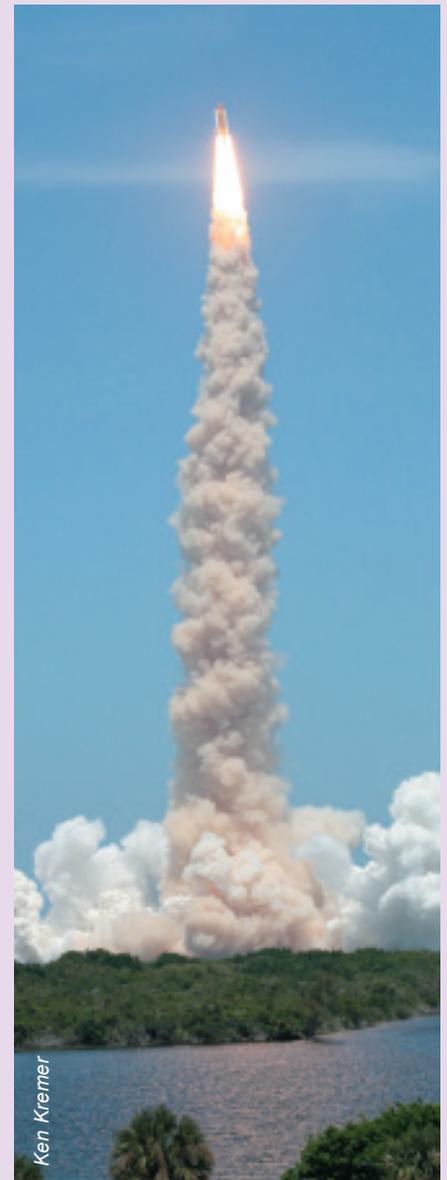
Joel Powell I watch from the shore of the lagoon at Kennedy Space Center press site, a prime viewpoint lined with people and cameras. The Shuttle stack sits motionless some five kilometers away, wavering in the heat over distant trees. Birds float in the wind-ruffled water. From here we're in front of the famous count-down clock so can't see its second by second march towards zero and the moment of liftoff. There are no loud speakers here either for mission commentary so we don't know if the launch is seconds away or if it's been scrubbed for a later day.

Then, in complete silence, a sheet of steam squirts to the right of the launch pad. An explosion of smoke surrounds the still-motionless vehicle, and for an instant I think the worse. Miraculously, it starts to rise on top of an astonishingly bright light, competing with the mid-day sun, yellow with a hint of orange. A young man complains of seeing the image burned into his retina. The growing pillar of off-white smoke has an intensely mottled appearance with the brightness stabbing between individual clouds.

Then the sound hits. Often described as a 'crackling', I hear a rapid banging like some kind of hyper-fast machine cannon — there are echoes behind me. The sound is felt as much as heard, like repeatedly getting hit. It grows and keeps getting louder long after I think it must be at maximum decibels — and increases still as the rising vehicle tilts away and points its engines toward us.

I realize an instant before everyone else that the Shuttle is about to fly behind its own plume, and I back out of the crowd and start an abortive backwards run to try and keep it in view. But I quickly stop, realising the

Eagles nesting at KSC.



Space Shuttle Atlantis shoots skywards as seen from the lakeside at Kennedy Space Center.

futility of trying to outrun the Shuttle. Someone shouts, "it's flying behind itself".

The source of all that noise and smoke does indeed fly out of sight. We miss the separation of the Solid Rocket Boosters and the pure white glare of the Space Shuttle Main Engines burning by themselves. We see them later, as the press room monitors replay the launch over and over from every possible angle.

The evening is quiet at KSC, a little cooler. I walk out to take a picture of four eagles sharing a ragged nest on top of a tall sign in the car park. The distant pad sits empty under the slowly dispersing smoke, which still reaches for the sky.

Donald F. Robertson is a freelance space industry journalist based in San Francisco — www.DonaldFRobertson.com