



ARCHIVES ARTICLE - Roberta Bondar

Almost Home

The Globe & Mail

Toronto – February 2, 2003

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It was the window – not the flight deck window but the middeck side hatch window just fore of the left wing. There would have been three crewmembers in the mid deck, right below the flight deck from which the other four crew piloted the shuttle. That's what my mind flipped to after the initial pall and gut wrenching nausea, thinking about the families waiting for their loved ones. Five times higher than the first safe bailout possibility, the crew aboard Columbia would have been within the gravitational field of Earth. Things misplaced during the flight would be bouncing off helmets with eager faces not revealing the fatigue of 24/7 scientific research. The plastic straws would still be dangling from the lips of some astronauts still trying to rehydrate with fluids drawn from shiny silver drink bags. The rush towards the planet around which they had been circling for 16 days would soon end in a feather light touchdown, albeit with seemingly square tires. They would savor the end of a perfect mission with warm and joyous reunions with family and friends.

In the few silent minutes that followed watching a blue television screen with a falling star and trails of white puffy clouds, stained with smoke, I thought about the window. On my flight of eleven years ago, the deorbit procedure was probably not too different. After all, there had not been any need to change the step requiring a crewperson to attach a metal protector that occluded the glass of the middeck window. This was just in case the need arose to blow out the side door below 40,000 feet and perform a bailout. No one wanted glass on the inside of the orbiter when the door exploded outward at over 60 miles an hour. One of my crewmates responsible for attaching the metal disk bypassed this step and all of us in the middeck were able to look out onto the clouds as they zipped by, and of course we saw our first close-up of Earth as we turned final into Edward's Air Force Base.

But which would have been worse in those last few moments of Columbia's life? Did the crew in the middeck, below the flight deck use this metal cover, rendering them blind to any view of Earth, entombing them in a fragile craft without sight of the world outside, a world that waited anxiously, happily for their return? Or did they too leave off this shield only to see a second or more of an ominous embrace that tore the shuttle and its crew from the safe stable glide that is known only to returning heroes?



There was one person in particular who reached into my heart on Saturday, a man whose responsibility and professionalism floated over his obvious pain. Passion for life and space exploration is double-edged, and to have his responsibility and to be very public in the discharge of his duties represents the best of NASA. Bill Readdy, Associate Administrator for Space Flight, was one of two other rookies besides me, aboard STS 42. One of his best friends, Sonny Manley Carter who trained with us as part of our crew, died tragically 10 months before our launch, in a commercial commuter plane crash on his way to speak at a luncheon as part of his astronaut duties. We changed our flight crest, replacing Carter with Hilmers (David C.) along the top edge and added a gold star in the sky. The day of the Columbia tragedy, Bill was wearing our flight crest over his heart, below his name badge. As I watched his grave countenance, and listened to his soft-spoken words, my eyes drifted to the crest. There were two top edges, with the one from the original "Carter" crest sewn neatly above the top edge of the second flight crest. On our flight, STS 42, he had conducted a memorial service to our fallen comrade and, because it was January, we also had a memorial service to the Challenger crew. Bill is all too familiar with risk and death and loss of family at NASA. What was HE thinking?

I expect that the passion that lives in the heart of NASA and all those who believe in space exploration and discovery is expressing itself in both grief and rededication. For those who share a vision that there are great things to be learned from working in the space environment, a gritty determination to persevere evolves. But the loss of life in such a public way with public money accrues debate, discussion, reassessment and inevitable change. We need the essentials of life--fresh air, clean water and good soil. Where then does the space program fit? Is this a program essential to our survival? Should robots completely replace human space flight?

There is no answer today about what went wrong and there is no timetable for rescheduling the flight manifest or reconfiguring an orbiter. What we do know is that space is a precious resource, a window to understanding the complex mysterious thing that we call the human body. Of course I am biased, what with being a physician and scientist. It is the passion to heal and the passion to make our short lives better, now and for future generations that drive me, Bill Readdy and thousands of others at NASA and beyond. Imagine the opportunity to study the interaction of every physiologic system in the body as it recovers from just one insult, being weightless in space. Imagine if in returning from space astronauts showed symptoms similar to diseases such as multiple sclerosis, osteoporosis, certain strokes,



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Parkinson's disease, and other degenerative diseases of the nervous system, even spinal cord injury. Now imagine them recovering. This is reality. On the Columbia flight, there was a Canadian experiment that would have added to the knowledge base required to develop new treatments for osteoporosis, for example. This is a small sample of what would be lost to us without humans in space and without the ability to study them on a safe return.

Now we have a world with dark clouds of war amassing on the horizon. We have life and death needs that require stability in order to survive, politically, financially, and environmentally. We all have our own opinions but hopefully when it comes down to the tough decisions, there will be people with vision, and passion to lead us out of our gathering gloom who will find that there is light when you push the envelope with the right stuff.

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