Calculated Risk: Calculated Risk Three Foundations

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Movin through the spheres, faster than light
On our way to some planets that were outta sight!
We said space driver, give it a spin
And take us to some places
We ain't never been.

— "Is That You Mo-Dean?" by the B-52's

OK, I admit it. I was a Trekkie. No not *Voyager*, not T*he Next Generation*, I am talking about the original three seasons. No cracks about my showing my age, please. I watched 'em in reruns, OK? I never went to Star Trek conventions or glued on pointy ears, but I knew all the original episodes and could identify them by title no more than 10 seconds into the broadcast. Like many young people, I was fascinated with the thought of what might be out there. I longed to go.

What is it about space that beckons us, draws us, intrigues us beyond reason? The stars have been a human obsession since Adam and Eve glanced up and noticed those nighttime twinkles. We have been willing to take enormous risks and face endless setbacks to get there. The Tower of Babel, an early attempt, was pretty much a botched job. Recall the Greek myth of Icarus who made wings of wax and feathers. Lift off went OK, but he perished when he flew a bit too close to the sun and the wax melted. Downer! Disasters have continued to plague man's flight to space, but haven't yet killed the dream.

Fast forward to 1970, when the whole world was transfixed as Apollo 13's oxygen tank exploded several hours after Joe Kerwin, the ground CapCom on duty, said, "The spacecraft is in real good shape as far as we are concerned. We're bored to tears down here." Many long hours were focused on rewriting procedures and balancing solutions to avert one crisis only to realize in time the solution would cause problems in one or more areas, so they needed to fix those, too. The ground crew prevailed and brought the astronauts home safely. By 1986 when the 11-year-old Mir space station had a head-on with its supply rocket, most people were just relieved that the collision did not interfere with morning rush hour. These little breakdowns happen. Space stations don't last forever, you know. Most cars don't even last as long as Mir.

By the summer of 1997, most of us down on earth were blasé when one American astronaut joined two Russian

cosmonauts on board a Russian space station. Yet, the risk management mishaps read like the best TV sitcom script. Most mornings, I awoke to a report of the latest thing that had gone wrong: another piece of equipment broken down, a computer that turned itself off, vital gasses and fluids leaching into the vacuum of space. If it were not for the fact that these guys were in outer space zooming around the earth at 17,000 miles per hour, it would have been almost comical. They had fires, accidents, computer glitches and even cardiovascular problems. Yet they appeared to remain calm and in control of the situation. I was filled with admiration for these guys, who just took each thing as it came along and dealt with it in spite of the criticism of some on the ground who questioned their every move. They were like those cool dudes (you know the ones) who never fail to find a parking space near the movie theater any time of the day or night. Or the idealized risk manager handling the next crisis and watching out for tangential problems.

There are the high flyers, the adventurous ones. These are the men and women with the “right stuff” ready to tackle the impossible for the same reason that some climb the Himalayas, just “because it’s there.” That would not be me. But the mountain climbers and the astronauts — who are certainly brave and daring — would be just hanging off a glacier or floating in a tin can were it not for some pretty smart and level-headed folks down in the base camp or at Mission Control. Those folks are the ones who know how to pull them out of a tough situation. When Apollo 13 went wrong, sure the crew kept their wits about them, but it was the guys down on earth pushing some serious slide rule that got them home in one piece. You can be the bravest person in the universe, but when the robot arm fails to deploy, who ya gonna call? “Houston, we have a problem.”

Are these challenges so different from those nonprofit organizations face every day? Doesn’t it sometimes seem that we go from one crisis to another? The risk manager is constantly preparing for what may go wrong, which piece of equipment might fail, for human error and frailty. At the same time, the world is barreling ahead at 17,000 miles an hour. Infrastructure like bridges and roads and systems are breaking down faster that we can maintain them. The pace of technological change means that computer systems are outdated before they hit our desks. Stock portfolios disappear overnight. Suddenly that foundation that was so generous is tightening its belt. The coffee machine sputters and dies. When the call comes, will you be prepared? Will you be able to guide the crew back to earth?

NRMC’s annual *Risk Summit* is a space station for the mind. It’s a place to experiment, to try out new ideas, to network and to learn, to refuel. It is an outpost from which to take in the breathtaking beauty of the home planet and to help us put career journeys into perspective.

We on the ground crew keep plugging away. A little soldering here, some duct tape there, trying to hold things together enough to keep the experiments going. Because ultimately, we are not judged by what goes wrong, but by how we deal with adversity. Do we rise to the challenge or let a fear of the unknown overcome us? Just as important as the boosters that help a craft reach escape velocity are the retrorockets that fire and slow it so that it doesn’t burn up on re-entry.

Thanks to you at Mission Control, the nonprofit enterprise will continue to “boldly go where no one has gone before.” Keep making those calculations and we’ll all make it to the stars.