

FROM SPACE MISSIONS TO HOME



By Cheryl Van Tuyl Jividen :: Photography by Mark Humphries

Cordillera Ranch's Rocket Couple, Richard and Karen Jackson

Both NASA retirees, Richard and Karen have propelled many a rocket-fueled shuttle into space during their careers in human spaceflight missions.



“Karen and I both started off as contractors supporting NASA engineering and operations prior to being hired by NASA. The 1980’s were an exciting time to work at the Johnson Space Center due to the large number of college hires and the initial flights of the Space Shuttle,” says Richard. “My first job was supporting the testing and certification of the Extravehicular Mobility Units, more commonly called the space suits, for the first Shuttle mission. I then moved into Mission Operations supporting the Orbital and Reaction Control systems which are the

smaller rocket engines used for attitude control and getting into and out of orbit. Karen hired into Mission Operations supporting the Orbital and Reaction Control systems. We both progressed through the different support positions and eventually became Ascent/Entry Propulsion Officers. Karen was only the second woman to certify in this position.”

Texas natives, both mechanical engineers got to NASA through different paths. Karen from San Antonio graduated from Rice University, while Richard a Houstonian, graduated

from Texas A&M. Their careers eventually mirrored each other.

“My first flight as an Ascent Propulsion Officer was STS 51F which was our only abort to orbit. Part of the abort profile was to dump a significant amount of our systems propellant. I remember talking to the Ascent Flight Director years later about whether he was listening to my backroom communications loop. He was and remembers the response my consumables officer replied when I had asked how much propellant we had left. The answer was ‘not much.’”

The couple first met during the STS 51F Shuttle postlanding party at the Gilruth Recreation Center at the Johnson Space Center. It was Karen’s first week on the job.

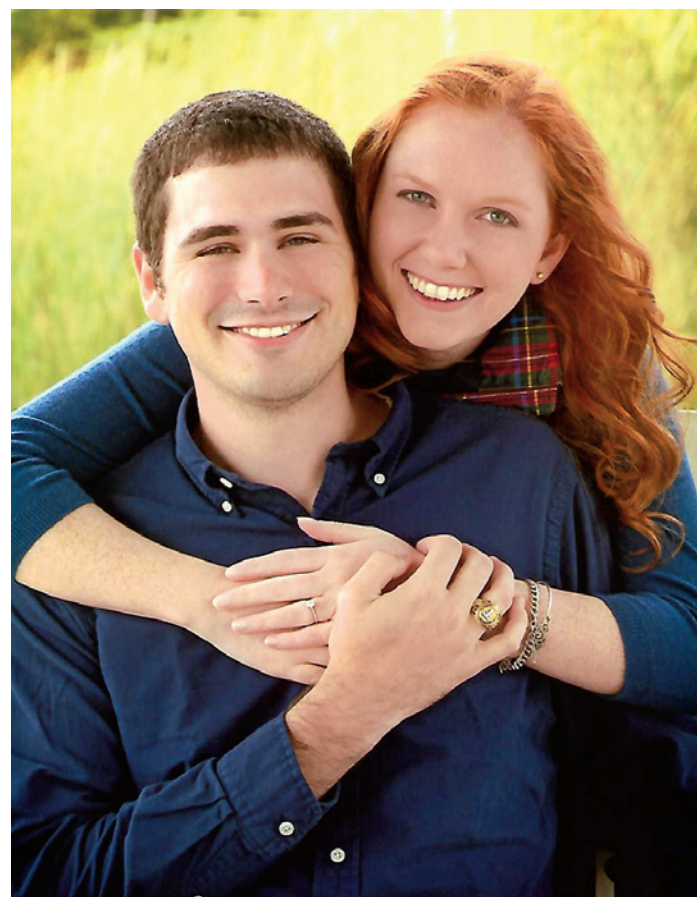
Richard’s NASA career evolved to technical management, Flight Director and then Deputy Manager for Space Shuttle Vehicle development. As a Flight Director, he supported 15 Space Shuttle flights, primarily as a Launch or Entry Flight director. “That job was one of the most challenging and demanding jobs I held over my career,” Richard says. “The Flight Director has full responsibility and authority for crew safety, vehicle safety and mission success. The Flight Director, along with the Shuttle Commander, have the real-time authority to take any action necessary for crew safety, vehicle safety and mission success.” While Richard was a Flight Director, Karen was responsible for training many of the Flight Controllers that would support his team.

Richard left NASA in 2000, but he found his way back home when recruited by Lockheed Martin to manage operations for the NASA Mission Control Center, supporting business development and program management. He explains, “As a Flight Director, I was the first one to launch a Space Shuttle out of the new Mission Control Center; the final transition from mainframe computers to a workstation-based architecture.” As the Lockheed Martin Program Manager running the Mission Control Center, Richard’s team integrated two large contracts, one supporting the Mission Control Center and the other supporting the Flight Simulators. That integration led to synergies in hardware and software that significantly reduced the cost of operations.

Karen advanced as well to include Propulsion Group Lead, making history as the first female Branch Chief of Electrical Systems and Deputy Systems Division Chief, and ultimately the Associate Director of Flight Operations. That position encompassed the astronaut corps, the aviation division overseeing T-38 jet trainers, Shuttle Training Aircraft, WB-57 research aircraft, and the flight operations division encompassing flight controllers, Mission Control Center and the Flight Simulators.

Working together, Richard tells of a collaboration, “Shortly after Karen came to work in Mission Operations, we had a Reaction Control System regulator fail close at the external tank separation on STS 61A. We eventually discovered that a contaminant had blocked a pressure sense port. In order to ensure safe operations, Karen and I were assigned the responsibility to write a software change that would detect and reconfigure the system to ensure safe external tank separation. We then had to lead the effort to have the software change approved and implemented. The software change was implemented and flew for the rest of the Shuttle program.”

Especially proud of her accomplishments, Richard recalls seeing Karen’s sharp skills in action, “One of my roles in technical management was as Spacecraft Analysis Manager which was the interface between the flight control team and the engineering mission evaluation team. I came in one evening to work the night shift and Karen was working as the Propulsion Officer for the shift prior. As I walked into the Mission Control Center, you could have heard a pin drop. I came to find out that Karen had



seen unexplained reaction control system thruster firings as the shuttle was heading into a loss of signal with no data or communication, and alerted the Flight Director. The crew was asleep at the time. The Flight Director was able to identify that a state vector had been sent to the vehicle prior to the thruster firings. As a result, they immediately woke the crew at acquisition of signal, with data and communication re-established, to take action and stop the spin on the vehicle.”



Photo by Jennifer Smith

While their NASA careers were in full force, Richard and Karen found time to enjoy biking, running — Richard has run 13 marathons, including Boston — scuba diving and river sports. Richard has a private pilot's license and advanced sky diving ratings. He jokes, “I've jumped out of perfectly good airplanes/helicopters just shy of 1,000 times.” On one occasion, he was part of a skydiving team that set a world record canopy stack — 23 parachutes stacked together — beating out British and French military teams in 1985.

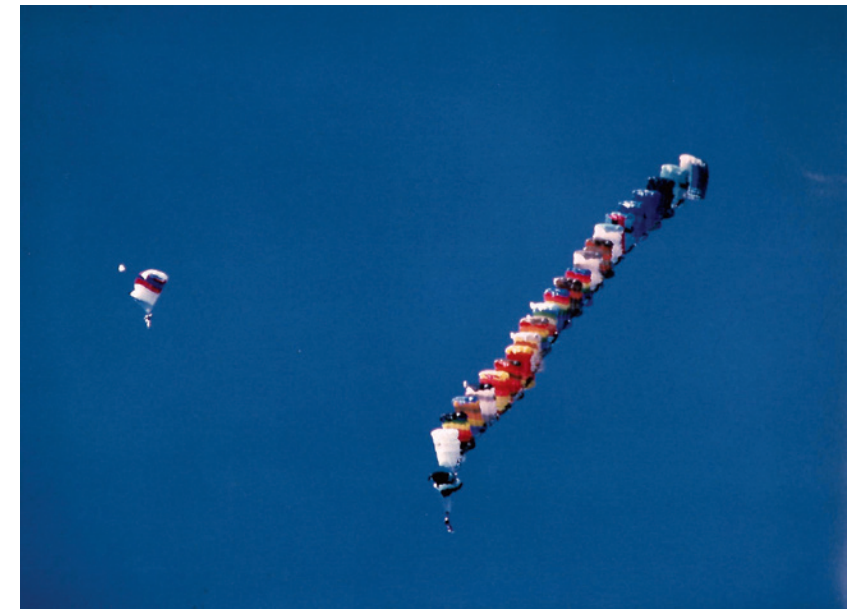
They were also busy building their family. Married in 1989, Richard and Karen have two children, Kelly and Kevin. And even with their exciting careers and hobbies, they say that some of their greatest memories are centered on their involvement with their kids. Richard remembers he and Kelly participating in the YMCA Indian Princess program, “Our tribe had a fantastic group of dads and girls which fostered great friendships that continued over the years with memorable vacations, rafting trips and snow skiing. In fact, my first C-Star guest this year was one of the dads from the tribe.” Kelly also started golfing early with Richard and developed a love for the game, and went to play on Intermediate and High School teams.

Son Kevin was born with special needs. “We were fortunate to have found the Monarch School in West Houston that really helped Kevin's development,” says Richard. Kevin's favorite activity was Challenger League Baseball which Richard coached the entire nine years that Kevin played.

And they can't forget other integral family members: their two yellow labs, Jake and Bluebird. Karen gave Richard their very first lab, Jack, as a house-warming gift in 1987 and labs have been a part of their family ever since.

But even after retirement, the couple have no plans for slowing down. Though they just moved into their new home in January, and despite the pandemic, the Jacksons found friends with space mission commonalities at Cordillera Ranch. Karen had worked with Rick Weller at NASA while Richard had worked with Ginger Barnes when she was CEO of the United Space Alliance supporting the Space Shuttle Program.

They've joined the CWGA, MGA and Couples Golf — Karen is working on trying to break 100 while Richard's goal is to get his handicap down to 7 — have plans for travel and continue to maintain connections to NASA and their alma-maters. Richard has a seat on the Board of Directors for Space Center Houston as well as a Board of Advisors Position for the Coalition for Deep Space Exploration. Karen supports recruitment for Rice and together they fund several scholarships at TAMU for first-generation students. Richard was the first in his family to attend college and was fortunate to have the support of his parents, explaining, “Many first-generation students have significant financial need so we are happy that these scholarships can help ease their financial burden and allow them to focus on school.”



Aside from falling in love with the Cordillera Ranch community, having family in the area was a big draw. Karen's parents still live in San Antonio, and even though Kelly and husband Ethan transferred to northern California where he is serving in the United States Air Force, they have plans to return. Kevin lives in Austin where he continues his education at The Marbridge Foundation — another recipient of Jackson family support — and works part time for MOD Pizza, a company who supports employment of the differently abled. Their latest and greatest news is becoming first-time grandparents. Kelly and Ethan welcomed granddaughter Whitney just a few weeks ago and extended visits will become a norm. When asked what their grandparent monikers will be: Kami for Karen (a combination of Karen and Mimi after her own mother) and Action for Richard. How appropriate! 🍷

