

## CHAPTER 4

### DAVE BROWN: PILOT, DOCTOR, GYMNAST

Dave Brown became an astronaut in 1996. He was one of the rare astronauts who was both a medical doctor and a military jet pilot. But he'd also had probably the most unusual job ever held by anybody who eventually became an astronaut: He was a circus performer.

I asked him—at a news conference, in front of everybody—“A lot of kids dream about running away and joining the circus or becoming an astronaut. What was your family's reaction when you told them you were going to run away and join the circus, and what was their reaction when you told them you were going to become an astronaut?”

After a chuckle he replied, “When I was in college I was a gymnast. One day I was in my dorm and the phone rang, and the fellow on the other end said, ‘Hi, you don't know me, but would you like to work in the circus?’ I said ‘Sure,’ and I did for a summer, which was a pretty interesting job. When I called my parents and told them I was going to join the circus they were surprised, but when I told them I was going to become an astronaut they weren't surprised at all.” It certainly makes sense for a circus to recruit gymnasts for summer jobs. Brown became an acrobat, 7-foot unicyclist, and stilt walker with Circus Kingdom in 1977. But he only stayed with the circus for the summer. He returned to college, went on to earn his medical degree, and joined the Navy.



Dave Brown (on the left) performs in the circus in 1977. Photo courtesy of Debby Kate Stahl Ramsey.

Brown was born in Arlington, Virginia, and educated in Virginia—from elementary school through medical school. His father, Judge Paul Brown, was elected as a traffic court judge, and was eventually appointed by the governor to serve on the state’s circuit court, where he served for two decades.

As a child Dave Brown had his first experience with what would become a life-long passion—flying. He said, “I was interested in flying beginning at age seven, when a close family friend took me in his little airplane. And I remember looking at the wheel of the airplane as we rolled down the runway, because I wanted to remember the exact moment that I first went flying. And I do. I remember the exact moment when I saw that wheel lift off. So, that’s really when the flying interest began for me. It was someone who took the time to take this kid in his airplane; and, boy, it sure set a bit in my head that’s been there ever since.” In contrast, Dave’s brother Doug grew up loving boats, and became a CPA.

Even as a kid Dave enjoyed technical hobbies. He had a ham radio license, and spent a lot of time in the basement, using Morse code to communicate with ham radio operators around the world. He used his newspaper route money for a class trip to the British Isles, where he looked up one of his ham radio contacts. During another summer he was an intern at the Smithsonian Institution. His mother, Dorothy, recalled that Dave and a high school buddy got involved with a neighbor in a research project at the National Zoo, where they studied the behavior of the African antelope.

The Brown family loved outdoor activities. Although Judge Brown had been stricken with polio and had to wear a leg brace, he wasn’t one to give up an active life. Dave’s brother Doug Brown recalled, “It never stopped my dad from having a speedboat; he’d just climb over and get in and go.” Dorothy and the boys loved to water-ski. Doug said, “Dave and I used to have these contests to see who could slalom and dip his right shoulder into the water without falling down. You had to lean over far



An early photo of the Brown family—Judge Paul, Dorothy, and brothers Dave and Doug. Photo courtesy of the Brown family.

enough so that you could get your shoulder to touch the water and come back up. Getting close is easy—getting to ‘come back up’ is hard. I’m sure we both did it at least once, but 99 percent of the time you’d wipe out.” Doug said their father never considered his polio a handicap. “He never let it bother him, it was just part of life. I think that’s just an inspiration in itself.”

The Brown brothers attended McKinley Elementary School and Yorktown High School in Arlington. A suburb of Washington, D.C., Arlington had a population with a lot of people who worked for the federal government. Dave Brown told me, “A lot of my classmates were sons and daughters of army sergeants, senators, generals, admirals—a real smorgasbord of interesting people that were coming and going from the government.” Brown said high school was the turning point of his life: “I always started things late. I guess I came out of my shell in high school. I decided on the spur of the moment I was going to go out for football and do gymnastics—normally contradictory sports. I think my interest in science blossomed in high school too.”

Dave Brown recalled, “The teacher I remember best from my high school was my gymnastics coach, Jesse Meeks. When I showed up I said I wanted to play football and the same guy was also the gymnastics coach and I wanted to do gymnastics too.” Brown noted that his coach didn’t complain about him wanting to do such non-complementary activities, “He just said, ‘Come on let’s go.’ There was none of this, ‘We’ve never done this before, I don’t know if you’ll really be able to help the team as much.’ He just said, ‘Let’s go, welcome aboard.’” Brown played football at Yorktown High when Katie Couric was a member of the cheerleading squad. She was in the class after Brown’s and it was several years before she became famous as a news anchor. Brown joked he didn’t need to become an astronaut to become famous because when he was in high school, Katie Couric cheered for him!

Brown went to the College of William and Mary, where he was an NCAA gymnast, and after earning his undergraduate biology degree went on to Eastern Virginia Medical School and a medical degree in 1982. Then he joined the Navy.

Brown was a flight surgeon attached to the aircraft carrier USS Carl Vinson, which was cruising in the Bering Sea in winter arctic conditions, for the first time since World War II. Brown had a passion for making videos. In his spare time he went around the carrier filming aircraft landing with his camcorder, doing interviews, and turning the footage into a training film for flight surgeons to prepare air wings and other personnel on cold-weather flight operations. Navy buddy Jeff “Goldy” Goldfinger noted, “Dave was awarded flight surgeon of the year because of that effort.” McGraw-Hill used video clips of carrier operations for a video called “Flight Deck,” earning Brown his first professional credit as a cameraman.

Goldfinger also recalled a less stellar moment from Brown's Navy career. On a later deployment, the Carl Vinson was in the Indian Ocean. The Navy F-14s would fly on patrol and escort any Soviet aircraft that came within 200 miles of the carrier. It was the height of the Cold War—Soviet and American forces were under strict orders to avoid anything that could escalate into an international incident. But pilots will be pilots, so they would “tease” their adversaries by locking their radars on each other's aircraft. You were allowed to lock your radar on another aircraft, but you couldn't put it into track mode because that would be considered a hostile action.

As a flight surgeon Brown was not required to actually fly in one of the carrier's aircraft, but he loved flying and asked if he could hitch a ride in the back seat of an F-14, the seat normally occupied by the Radar Intercept Officer (pronounced “ree oh”). Goldfinger said, “Everybody said this is probably okay, nothing's going to happen. Dave's in the back seat of the wingman's airplane. The two airplanes take off and all of a sudden we get intelligence information that the Soviets have launched a transport aircraft, and in about 20 minutes it's going to be within range of the carrier.” The training mission became an operational flight, where the lead F-14 would use its radar to lock on to the Soviet aircraft and monitor its location.

Goldfinger continued: “Next thing you know, the lead aircraft's radar system takes a dive and goes stupid, so he becomes the wingman. Now Dave's airplane is in the lead, and he's responsible for joining up with the Soviet aircraft. But he's a surgeon; he doesn't know how to operate the radar. So the guy in front is trying to talk him through all of the button smashing. You can imagine the concern in the cockpit and back on the carrier, because they know there's a doctor in the back seat trying to perform an intercept on a Soviet aircraft. No matter how much the pilot tried to talk him through it, Dave never was able to get a good lock on the [Soviet aircraft].” As with other American-Soviet air encounters during the Cold War, it ended without incident, but by the time Brown's plane landed back on the carrier he had earned the brand-new nickname of “No Lock Doc”, which stuck with him through the rest of that deployment.

The Navy gives a very small number of flight surgeons jet training so they can have a better appreciation of what goes on in the cockpit from a pilot's perspective. Brown said, “I got a brochure that showed a Navy physician standing on a flight deck next to an F-4 Phantom. I said, ‘Boy, I've got to go learn about this.’ I applied, and the first time they said, ‘No, you're not going to do that.’ So I thought, and I said, ‘Well, I really *would* like to do this.’ So I reapplied, and they said yes. I went as a medical guy off to Navy flight training and ended up flying the Navy A-6.” Brown eventually accumulated over 2,700 hours in high-performance jets.

Of course not all of Brown's military career was so dramatic (or embarrassing) as the “No Lock Doc” incident. Dave described a less



Dave Brown in Navy flight training.



Dave in one of his personal aircraft, a Beech Bonanza. Both photos courtesy of the Brown Family.

embarrassing portion to a NASA interviewer: “When I think about one of the times when I was doing things that I just really enjoyed, it was when I was with the Navy in Nevada. I was working at a school there and was getting to fly two different high-performance jets. I lived in kind of a rural area. I’d ride my bicycle to work, 13 miles each way past all these ranches and cows and alfalfa fields. I actually rode my bicycle about 2,500 miles that year. And that was—for a guy that likes to fly airplanes and be outside and do interesting stuff and be around challenging people—that was pretty neat, that four years I spent in the Navy in Nevada.”

Goldfinger recalled an amusing incident with Dave’s bike. It had pedals that locked on to your feet, and on one occasion Dave couldn’t get his feet out of the pedals in time as he slowed for a stop sign—and fell over when the bike came to a halt! When Goldfinger saw Brown riding a bicycle in space for an experiment, he sent Dave an e-mail cautioning him not to fall off. Brown replied, “As my crewmate K.C. would tell me I am continuously falling over up here [because microgravity is actually the shuttle constantly falling around the Earth].”

Brown was realistic enough to realize that his chances for becoming an astronaut were small. Initially he thought becoming an astronaut was too high a goal: “I remember growing up thinking that astronauts and their job was the coolest thing you could possibly do. But I absolutely couldn’t identify with the people who were astronauts. I thought they were movie stars. And, I just thought I was kind of a normal kid. So, I couldn’t see a path, how a normal kid could ever get to be one of these people that I just couldn’t identify with. And so, while I would’ve said, ‘Hey, this is like the coolest thing you could possibly do,’ it really wasn’t something that I ever thought that I would end up doing. And, it was really kind of much later in life after I’d been in medical school, I’d gone on to become a Navy pilot, that I really thought, ‘Well, maybe I would have some skills and background that NASA might be interested in.’” By that point, Brown had four separate things that NASA looks for in its

astronaut candidates: military experience, test pilot school, a medical degree, and jet pilot experience. He'd gone way beyond "maybe" and "might be interested in," and in 1996 he was selected as an astronaut. Brown never lost his love of flying airplanes. On the job, he flew NASA's T-38 training jets that the astronauts use for proficiency as well as for transportation to many of their work locations. Brown also loved to fly in his spare time, even if his personal planes weren't high performance. He owned two light aircraft—a Bonanza and a SuperCub. His home was located on Polly Ranch, a small airport near NASA where he could taxi his plane out of his backyard directly on to the runway. Dave would tell people, "I bought a hangar and a house came with it."

Brown had told friends, "When I'm in the T-38 and see Joe-Blow flying around in a Bonanza I think, 'That's just a little general aviation plane; I'm in my jet and I'm something else.' But when I'm in my Bonanza and see the T-38 I think, 'It's really cool to have your own airplane and be in general aviation and not be in that high-speed airplane—I can go anywhere in this little airplane.' It's great from both sides."

Brown's neighbor Al Saylor is a professional mortgage broker and skydiver. Saylor was flying in his Cessna 206 with another neighbor, Jeff Kling, and as Saylor tells it, "As we're climbing out of Houston going through about 4,500 feet, we heard a T-38 aircraft come off of Ellington Field with a familiar voice and a NASA call sign. Both Jeff and I immediately recognized Dave's voice and we started to grin." Kling was informed by air traffic control that there was a T-38 about six miles behind them. Saylor continued, "Dave recognized our call sign immediately and radioed 'Traffic in sight.' Just about that time we turned over our shoulders and saw the T-38 climbing at a very high rate of speed. And as Dave came right by us he radioed 'Hello boys' and did two 360-degree rolls as he went by. We were just thrilled that we got a private air show." Saylor notes that they were over the water and it was perfectly safe: "Dave was a safety-conscious guy. It wasn't thrilling because it was close—it was thrilling because it was our great friend and good buddy."

Brown also was quick to be neighborly. Kling recalled, "One time Dave came by just prior to tropical storm Allison. He knocked on the door and said, 'I need some help. Steve Robinson is out of town in Russia. We need to put up his furniture so if his house floods he won't lose everything.' So I said, 'Good enough, let's go be a work crew' and I thought to myself 'Here's Dave looking out for other people all the time.'" Many friends recalled that Brown was always more concerned about how they were doing or what was happening in their lives.

Kling recalled a neighborhood event: "We'd have these neighborhood fly-outs where we'd invite neighbors who didn't have airplanes and fill our empty seats and go out to dinner or something. We all flew down to Moody Gardens in Galveston to see the IMAX "Space Station" movie.

We flew all of our neighbors including Dave and [astronaut] Leroy Chiao.” Chiao was one of the “stars” of the movie, which was partially filmed on his STS-92 mission in October 2000. The group was teasing him about it and encouraging him to wear dark glasses like a movie star so he wouldn’t be recognized! Kling said, “Dave was saying ‘I can’t wait, this looks like so much fun,’ and Leroy said, ‘Actually this looks very real, this is as close as it gets. Without the zero-G, you can’t tell the difference. They’ve done a real good job.’” Kling recalls, “It was kind of funny going down there with astronauts who had been in space and were about to go in space. They’re just like the rest of us, thinking ‘This is a real cool thing.’” Kling worked in Mission Control and was one of the flight controllers for Brown’s mission, including the reentry. He recalled, “It was really cool doing all of the training and having him there.” Kling remembered the debriefing from an extremely long simulation involving the entire team. Brown was using his camcorder to film the entire meeting. Everybody else attending the debriefing had technical inputs, Kling recalled, “Dave’s asked if he has any comments and he says, ‘I’m just really glad to be here and I’m ready to go fly.’ Kling said, “That is so Dave—of all the things he could have said.”

What all of Dave’s friends and acquaintances will tell you is it was never about Dave, it was always about you. He was an extremely humble person, never one to brag about his fame or job. Kling said, “He was the most modest overachiever you’d ever meet.” Neighbor Cindy Swindells recalls it was six months after she met Dave before she realized he was an astronaut. When he moved in and got acquainted with his neighbors he just told them he worked at NASA. But one day she saw him wearing his blue flight suit and it suddenly dawned on her he was more than just another typical NASA worker!

The souvenirs Brown flew on STS-107 included: a T-shirt for his elementary school, flag for his high school, and banner for his medical school. Additional items included a cloth patch for the Johnson Space Center Astronomical Society, a red-white-and-blue scarf from the base where he did his jet training, a paper resolution from the Guam legislature, a T-shirt for an elementary school in Colorado, and a flag for a school in Connecticut. Brown also offered to carry one monogrammed tea towel for a school in England. But the school sent two towels. Rather than disappoint the school by flying only one, Brown asked a friend to sew the two together to make them look like a single larger towel.

Brown was the only single member of the crew, but was interested in settling down and getting married. At the time of the accident he was dating Janneke Gisolf, a graduate student in Amsterdam who was part of the STS-107 ARMS (Advanced Respiratory Monitoring System—pronounced “arms”) experiment. His brother Doug said Dave was really serious about her: “When Dave came home for the holidays he put her pic-

ture on the dining room table where everybody could see it. They were discussing baby names.” Dave was rather unusual for a single man—he got along well with his ex-girlfriends and invited many of them to Florida for his launch. They were at his pre-launch reception, but Dave couldn’t be there because he was in quarantine to prevent him from catching a cold the before launch. He was only dating Janneke, but many folks wondered why so many of his girlfriends were there or at his memorials.

Without a family to support, Brown spent much of his income on electronics and other technical gizmos. He would refer them as BTUs—Basic Toy Units. When asked how much a particular item cost he might say, “Oh, about three BTUs.” A BTU was the equivalent of \$1,000. Friends remember he had a wireless Internet connection well before they became commonplace. Many of Dave’s BTUs were video cameras and Macintosh computers. He was documenting all of his training and planned on making a movie about his mission to explain what made spaceflight so special and what drove astronauts to select that career.

Dave did, though, have a family of sorts—a Labrador named “Duggins,” which he’d gotten as a puppy. Doug Brown explained, “Duggins flew with him in Dave’s plane up here when Dave visited. Duggins was Dave’s buddy.” Duggins was originally co-owned by Dave and a Navy roommate, but when their assignments took them in different directions, Dave got Duggins. Because of Dave’s many travels for his work he left Duggins with neighbor Cindy Swindells and her teenage son and daughter. Doug explained, “The neighbors were more than dog sitters. They did it so often Duggins became part of their house too.”

Cindy Swindells said, “We got just as much fun out of watching Duggins as Dave did.” As a thank you for taking care of Duggins, Dave would bring the Swindells presents from wherever he traveled. After returning from one trip Dave called to say “I’ve got a really good surprise—it’s alive.” Swindells noted, “When you tell that to kids they immediately think ‘He’s got us a puppy!’ and everybody’s excited and



Dave Brown and his best friend—Duggins. Photo courtesy of the Brown family.

waiting for him as he pulls up the driveway.” She recalled, “Dave goes to the trunk and the kids are a little concerned because they knew Dave wouldn’t put a puppy in a trunk and he pulls this box out of the trunk and it turns out its these two live lobsters. My kids were so mad. My daughter said, ‘It’s Sebastian’ [from “The Little Mermaid”]. Dave’s standing there realizing, ‘Oh no, what have I done?’”

Cindy added, “I looked at my son and he’s really ticked off that it wasn’t a dog.” She explained to her kids that they could either cook the lobsters or set them free in the creek. They compromised—they cooked the son’s lobster and set the daughter’s lobster free! That was the last time Dave Brown tried to bring back live presents for some time. Cindy said, “He always brought us back special gifts. When he went to Key West, we got key lime pie. When he went to Las Vegas he brought us poker chips. We got chocolates and live tulip bulbs from Holland. We have this huge collection of great gifts.”

I met Dave Brown at a party in Florida, where he was working at KSC as an “Astronaut Support Personnel”, one of the astronauts who helps other astronauts to prepare for their missions. He supported shuttle launches from May 1999 to September 2000. The first flight on which he helped the crew into the shuttle was STS-96, Rick Husband’s first spaceflight. Brown also assisted the STS-93, STS-103, STS-101, and STS-106 crews. Dave was anxious to get his own flight assignment, and it showed. When I discovered that he was assigned to STS-107, he couldn’t keep his delight hidden—the smile on his face said everything. But when I pushed him on the mission’s details, he asked me to wait until the official announcement.

Saylor said Brown told him about an incident in Florida. Brown was in an elevator at the launch pad. This was no ordinary elevator in a building but a mesh cage, and it was stuck. Saylor said that Brown told him with a grin, “I’ll tell you. I looked around the elevator and thought, ‘Who’s an asset and who’s a liability?’” Brown was already thinking about who had the skills and emotional stability to help him get the rest of the people to safety.

Like McCool, Brown was on the “blue shift,” which would go to sleep just a couple of hours after launch. He acknowledged how difficult this would be on what would almost certainly be the most thrilling day of his life: “Well, I think that probably my hardest job on this whole flight is going to be going to sleep the first night. The blue shift, which is three of us, we will launch actually in the ‘afternoon’ and ‘evening’ of our day. So, about four hours after we get to space, it’s nighttime for us and we need to go to sleep. So, even though I will have had a long day, I think it’s probably going to be pretty tough to go climb into bed and go to sleep. That’s probably going to be the toughest thing I have to do the whole mission.”