



Interview with a Hot Air Balloonist

In writing **KINGDOM OF SECRETS**, I researched the fascinating history of hot-air balloons. Then I used poetic license to imagine a world in which hot-air balloons remained the primary method of transportation, and in which a young inventor devises new ways to help them fly. But I was still curious about real-life, modern-day ballooning, so I reached out to Matt and Sara Robison, hot-air balloonists and operators of Straight Up Ballooning in Fort Worth, Texas. They generously agreed to answer some questions that my readers might be asking after finishing **KINGDOM OF SECRETS**!

Hi, and thank you so much for joining me! Can you tell us a bit about yourselves? How did you become hot-air balloonists? How long have you been flying?

Thanks for having us! I (Matt) am the pilot and Sara is our crew chief – meaning she’s in charge of everything happening on the ground when we fly. In our day to day lives Sara is a pharmacist and I’m the director of an organization that helps children with developmental and learning disabilities. Ballooning is something we do for fun on the weekends or when traveling to events around the country.

Sara first got into ballooning when she attended the Albuquerque International Balloon Festival with her grandmother about 20 years ago. She noticed that each balloon had a group of helpers called “crew” assisting the pilots with their flights (setting up the balloon, chasing it, and helping to recover and pack up the balloon). The next year she returned as a crew member and began crewing with a pilot who has mentored us both for many years. When Sara and I met ballooning became a big part of my life. That pilot took me on my first ride and helped me learn to start flying. I was instantly hooked. Three years ago, we purchased our balloon “Straight Up” and I earned my Private and Commercial Balloon Pilot’s Certificate.

What advice do you have for anyone interested in becoming a hot-air balloonist? Are there particular subjects or classes they should focus on? What sort of training is required? What traits make a great balloonist?

The best advice for someone interested in becoming a balloonist is to find a local pilot and offer to go out and crew with them. You’ll learn the ins and outs of crewing, weather, setting up and taking down the balloon, landowner relations, airspace rules, but most importantly you’ll have a lot of fun. Crewing the balloon is amazingly fun. After the balloon launches, ground crew will load into the chase vehicle (usually a van or truck) and follow the pilot during flight and help him/her land.

You can learn all about balloons and find balloonists and balloon events near you by going to the Balloon Federation of America’s website (bfa.net). The BFA even offers summer camps for young aspiring balloonists!

Student pilots spend lots of time studying weather and meteorology. Balloons are incredibly weather dependent – meaning we usually need calm winds and fair weather to safely fly. Learning to interpret weather forecasts and patterns is very important in picking flight routes and determining if the conditions are safe to fly. We also learn airport and airspace operations to appropriately interact with airports and other aircraft that may be in our area during flight. We spend lots of time learning how to setup and operate the balloon, going through basic maneuvers (takeoff, landing, controlled climbs and descents, navigation). After we fly a certain number of hours and can demonstrate our abilities,

we meet with an examiner and take our check ride. If we pass the practical, written, and knowledge exam, we become pilots!

Balloonists come in all shapes and sizes and have many personalities. To be a great balloonist though it helps to be a bit easy going and have the ability to calmly deal with rapidly changing situations that are sometimes out of your control. Being friendly goes a long way in keeping crew and helping passengers have an enjoyable flight with you.

How much control do you have over your trajectory when you're piloting a balloon? Have you ever been blown off course?

More than most people think! We have the most control over vertical (up and down) movement. Adding heat from the burner helps us climb, while letting the balloon cool down or venting hot air out of the balloon will cause us to descend. The winds blow at different speeds and directions at altitude (the higher we go). When there is a great deal of steering (winds blowing in different directions) we can go just about any direction the wind is moving. It's not uncommon for some flights to allow us to take off and land back in the same location! Geography and the local weather patterns play a big part in the types of weather and wind pilots experience.

I've had the wind change on me many times during the course of a flight. I've learned that Mother Nature is in control and she's going to do what she wants, no matter what the weatherman said this morning. Part of being a good pilot is learning how to manage those unexpected changes and adjust our plans.

Do you have any exciting, funny, or scary hot-air ballooning stories?

During one of my training flights we landed in pasture that had a large herd of cows in it. The landowner was very happy to let us land and even came out to help us pack up the balloon. When our chase truck (the vehicle that follows us around and helps pack up the balloon) arrived, the cows surrounded the truck and wouldn't let it move. The truck was the same type of truck that the ranch hands drove so the cows assumed it was dinner time and were looking for a snack.

Thankfully no scary stories for me yet. We try to fly only when the weather is safe to do so and we take very good care of our equipment. All of that helps to avoid any troublesome situations.

Hot-air ballooning is very popular in books, movies, and television. What is the biggest misconception about hot-air ballooning in popular culture?

I think the biggest misconception most people have is that balloonists have no control of the flight and we just float wherever the wind takes us. A good pilot with good winds can have an amazing amount of control over their balloon and really "fly" it.

What do you like best about hot-air ballooning?

I love the feeling of the basket leaving the ground for the first time. It never gets old! I also love listening to the sounds of the world get more and more quiet as you climb higher. After a few thousand feet you no longer hear cars driving, dogs barking or other everyday noise. It's you, your passengers, and the occasional sound of the burner. It's incredibly peaceful.

Any advice for those nervous to go up in a balloon (me!)? Do you ever have passengers who are scared of heights?

I'll let you in on a little secret, many pilots I've spoken to over the years are also a little afraid of heights too! Looking out instead of down always helps. One nice thing about riding in a balloon is that you will have a solid floor under your feet in the basket. You can also put your hands in several locations. That seems to help most people.

Whenever we have a nervous passenger we will always stay as low as we can right after takeoff to make sure everyone is comfortable with the flight. Taking things slow and easy really seems to help people feel at ease.

In my novel, the main character invents a system of valves to help steer the hot-air balloons, and she also proposes attaching a propeller to them. Do you think ideas like these have potential? Has hot-air balloon technology changed much over the years?

We use valves too! This is a good time to mention that there are two types of balloons. Hot air balloons and gas balloons.

On a hot air balloon, we use propane to fuel our burners. We activate the burner using what's called a "blast valve," which releases propane from our fuel tanks into the pilot light causing the big jet of flame you see. To descend the balloon, we pull on a line which opens a vent at the top of the balloon and lets some of the hot air out.

Gas balloons use lighter than air gasses (like hydrogen) to help them fly. They also have a release valve in their balloon to let some of the gas out to help them control their altitude.

Airships (which look a lot like blimps) use propellers to steer an envelope full of hot air around. They are like a hybrid between a balloon and a blimp. There have been a few designs over the years that use propellers attached to baskets, but we would need a lot of power to steer against the wind and that would mean a heavy engine in the balloon.

The early days of ballooning used open flame to heat the air inside the envelope or used lighter than air gasses to achieve lift. The early balloon envelopes weren't made of the same materials we use now. Modern ballooning really changed in the 1960s. We now use much more sophisticated fabrics and use propane gas to heat the air inside our balloons. We continue to look at lightweight fabrics and more efficient propane burners to help us fly longer and more efficiently.

Below is a short excerpt from my book, where the main character flies for the first time:

Father always said a balloonist doesn't use his hands or his eyes—a balloonist flies with his whole body. I never knew what he meant until that day. I loosed a rope, bit by bit. Only this time, I did it with my eyes closed. I paid attention to the pattern of the fibers sliding against my palms and the way the balloon reacted to every inch I gave. I noticed the air as it swirled around me, changing direction and speed. I listened to the pitch of the wind, the way it slapped the fabric. I noted each bulge and billow of the envelope. The balloon was a machine, but flying it was a dance. You had to feel it. And suddenly I felt it.

It's probably not a great idea to fly with your eyes closed! Is there anything else I got wrong? Anything I got right?

Are you sure you've never been in a balloon before? =) You are right on track with the idea of flying by feel and using multiple senses, although you are right, I definitely keep my eyes open. We absolutely use our eyes when flying – what is in front of and around, us, what do the instruments say, does the horizon show that we are climbing or descending, are the flags on the surface showing us that the wind directions changes on the surface?

We use our ears too – what are my crew telling me on the radio? Can we land in that field, is the weather changing? Can we hear the wind blowing through the basket as pass through a wind shear (change in direction). My ears might pop when we climb and descend too.

Currently to become a student pilot you must be at least 14 years old and you must be at least 16 before you can get your private pilot certificate. But you can certainly ride in one if you are younger than that. The Balloon Federation of America actually offers several summer camps each year where aspiring young pilots can start learning all of the basics.

Thank you so much for your time and for sharing your story with me!

Kingdom of Secrets available now from Delacorte Press. Learn more at www.christynewrites.com.
