

INTERVIEW BY Jennifer Davis & Margaux Daubry, IMAGE Courtesy of NASA

MANAGING RISK & REAPING REWARDS

Andrew Allen, owner of a Phenom 100E, has spent his life working with professionals who make the impossible possible. His company, Aerodyne Industries, provides engineering and IT support for eight NASA Centers across the U.S., including NASA's Artemis program bound for the Moon and Mars. As an Astronaut, Military Test Pilot, Top Gun Pilot and Aerospace Executive, his ingredients for success include discipline and the hard work of putting pen to paper to bring his visions into reality.

Your father was a Certified Flight Instructor (CFI) who introduced all five of his children to aviation. What do you think attracted you to flying more than your siblings, and how did this early exposure influence your career as a Pilot and Astronaut?

My father was an aviator who fell in love with flying when he joined the Navy in World War II. He was always working two or three jobs to afford five kids, and one of those jobs was flight instruction. Sometimes, he would take us up to see if we liked it, and I was the one out of the five that always wanted to learn more.

In middle school, I watched the Apollo landing on a black-and-white television with my mother. She asked me if I could see myself doing something like that, and my first reaction was, "Well, I can never be an astronaut because my grades aren't perfect, I get detentions in school, and I'm not the best, smartest kid in the world." So, she did the right motherly thing and suggested that if I focus on my studies, I can do all those things. Her encouragement motivated me, and I developed a passion for flying and a goal to be a pilot at a very early age. As an adolescent, this pushed me to focus

on the things necessary to become a pilot instead of the typical teenage distractions.

Later, I became interested in more advanced aviation technologies, and that was when I got into the military, where they have the most high-tech flying capabilities.

You spent 10 years as a Space Shuttle Astronaut and were part of the first crew to return to space after the Challenger explosion (1986). Please comment on what being an Astronaut has taught you about bravery, perseverance and teamwork.

When people say, "You must be brave because you're an astronaut," I don't think I am any braver than a policeman or a fireman, the people that run to the problem instead of away from it. The hardest thing about being an astronaut is getting selected. There are very few astronauts, and that's where perseverance comes in. I'm not the smartest person in the room or the greatest pilot, but I am very hardworking.

To persevere on a particular goal takes discipline and teamwork, and NASA is

the epitome of teamwork. One group of people—seven of us in the space shuttle—get strapped onto a rocket, blast off into space, come back and tell stories about it. In reality, tens of thousands of people made it work. And fortunately, they all did a good job because if they did not, then my flight might not have gone so well, and there might have been a problem or worse, a tragedy.

Aerodyne Industries operates in 10 states with more than 600 employees and made the list of fastest-growing companies three years in a row. What advice would you give other highgrowth companies to keep their momentum?

Starting a small business from scratch with zero employees is the hardest thing I've ever done. For me, there are three parts to it, and I call it a three-legged stool because all three pieces have to be done right, or you'll fall over.

The first piece is infrastructure and business administration. You must select the appropriate accounting systems, create a human relations department, and have the right people handling things. Good infrastructure





Left: Andrew Allen and his wife, Brenda, prepare to take off in their aircraft, the Phenom 100E, in Melbourne, Florida

Right: Andrew Allen and his wife, Brenda, at Aerodyne's Employee Celebration Event in Port Canaveral in February 2023

must also be scalable to ensure the business is prepared to grow.

The second leg of the stool is growth. You need the right talents that can focus on growing the company in a smart way where you can take risks, but not risks that are impossible.

Finally, the third piece of that stool is the execution of the job. You want everyone to have enough passion and commitment to care about their role. It doesn't matter whether it's the janitor, the CEO or the engineer; if people care enough about how they perform, they will do a good job.

As a former Marine Corps Aviator, what effect has military experience had on your business instincts? How do you approach challenges and unknown risks?

In the military, you learn the emotional intelligence to handle things that are a little risky. You don't take what I would call dumb risk. You don't decide you're going to jump off a bridge without a bungee cord; you don't take the risk of using drugs; those aren't smart risks. The military teaches how to take calculated risks and decide whether or not to take the risk through analysis.

A second point the military teaches is to take care of people. You can be a great fighter pilot, but you're not any better than the person that's working on your airplane. They make sure your plane is ready to go and will perform as expected. A company cannot be successful just because a CEO says, "do this and do that." You have to develop a relationship with your people so that they know you will fight for them and do what's best for them. Don't just focus on making money. Make them successful as well. And when people develop that kind of trust in you, they will follow you and want to stay with you.

You are a former Top Gun credentialed Pilot with over 6,000 flight hours on more than 30 aircraft types. What attributes led you to choose the Phenom 100E, and what benefits has it provided for your personal and professional life?

From a military career perspective, Top Gun is like the postgraduate school of flying airplanes. After making Top Gun, I went to test pilot school, where they teach you how airplanes fly, so you learn about all the different varieties and variations. So, when I looked around for the right airplane to buy, my priority was a good airplane that I could pilot safely over a good distance.

The Phenom 100E was affordable, but the other big piece is that it was user-friendly. The controls are very forgiving and safe because of the way the computer systems aid the pilot. It was a minimal risk for taking my family or business partners on a flight. It had enough dependability to be ready to fly when I needed it and the reliability of having few maintenance issues. I can easily fly the Phenom 100E alone because it's a very user-friendly, single-pilot airplane.

My company is geographically dispersed, so the primary purpose of getting the airplane was the ability to attend meetings in three different states, all on the same day. I get up in the morning, fly, have business meetings, and get back in the evening. I have people all over the country, so it has become an efficient way to handle business. I can fly up from Florida to Washington, D.C., over to Tennessee, down to Alabama, and then back to Florida. Commercial travel would take me two to three days because the

flights are not direct. In the U.S., we have a lot of smaller airfields that the major airlines don't fly into, but the Phenom 100E allows me to use those airfields, which is very convenient.

Though your astronaut days are far behind, you still frequent the Kennedy Space Center. Outside of your executive role, can you talk about the ways you stay involved with the local space community? I stay involved with the people I've worked with over the years who are associated with the space program at the Kennedy Space Center. I'm also on the board of two organizations, one is called the Astronauts Memorial Foundation, and the other is the Astronaut Scholarship Foundation. These organizations encourage schoolaged children to like and pursue STEM careers. I enjoy talking to young people,

and I tell them if I can be an astronaut, they can be an astronaut, too.

In addition to running your own company, you serve as acting CEO for the Coalition of Deep Space Exploration (CDSE). Can you provide some insight into the long-term benefits of strategic space investments?

The Coalition for Deep Space Exploration (CDSE) maintains a focus, commitment and passion for the country to invest in and accomplish further exploration because there are many good reasons to go out into space.

One is the creation of high-tech jobs. When you want to create a path through unknown territory, you must develop new technologies to go with you. Be it in communications, medicine, transportation, or power systems, you will create technology. Many of the

things my grandmother considered fiction have now all become true. Sometimes the difference between fiction and reality is nothing more than time. And if you give people enough time, they'll create a path to get there.

Back in World War I and II, after airplanes were first invented, some smart people got together and used the technology to create a way for regular people to fly from Los Angeles to New York safely and cheaply. Likewise, one of the biggest benefactors of space travel has been medicine. Many of the imaging systems that help people here on Earth were all created by space technologies.

NASA develops technologies to reach big goals. As a result, once created, other people can use those technologies for the broader good of everybody, whether it be in aviation, healthcare or another field. ◀

