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Girls LAUNCH

Learning And Understanding New Career Horizons



OBAP's First Girls in Aerospace Day

**Learn about different careers in
aerospace**

70+

**INTERVIEW WITH
LESLIE IRBY**

AMAZING PAGES





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ABOUT OBAP

Founded in 1976, the Organization of Black Aerospace Professionals (OBAP) is a nonprofit organization dedicated to the education and advancement of minorities in all aviation and aerospace careers. OBAP's Project Aerospace programming offers annual opportunities to inform and prepare aspiring aerospace professionals for their future careers. This dream-to-career commitment includes initial exposure to the industry through in-school career day events, immersive summer programs, flight training academies, and professional development opportunities held nationwide. OBAP has more than 3,000 members internationally representing every major and regional carrier and a diverse offering of aerospace professions. Collectively, we are committed to providing existing aerospace professionals with the resources needed to maintain and advance their careers. Learn more at obap.org. Connect on Instagram @OBAPExcellence or on Facebook

OBAP Programs:

OBAP's Project Aerospace offers annual opportunities to inform and prepare aspiring aerospace professionals for their future careers. This dream-to-career commitment includes initial exposure to the industry through in-school career day events, immersive summer programs, flight training academies and professional development opportunities held nationwide.

Explore Aerospace is our newest youth program and is an opportunity for students and middle and high school to enjoy an immersive experience in aerospace. This virtual program will help students deepen their knowledge of aerospace principles over the course of 12, weekend sessions. More information will be coming soon about this new program launching in February 2021.

Aerospace Professionals In Schools introduces students to the limitless opportunities available in the aerospace and aerospace industries through school visits, STEM events and career fairs led by OBAP members and industry professionals.

ACE Academies are week-long summer programs designed to expose middle and high school students to the history of aviation, fundamentals of aerodynamics, and the wide range of aerospace careers. ACE Academies are offered in more than 30 locations across the U.S.

The Lt. Col. Luke Weathers, Jr. Flight Academy provides life-changing exposure and education opportunities.

OBAP's Solo Flight Academy provides an affordable, two-week training program for young adults ages 16-19, culminating in an unforgettable solo flight experience.

OBAP Collegiate Chapters offer education, mentoring, networking and career placement opportunities to aspiring aviators & aerospace professionals. Chapters exist in 15 colleges and universities nationwide.

Scholarships, made available through partnerships with key carriers and aerospace-related businesses, allow award recipients to advance or pursue diverse aerospace-related careers.

Learn more, or become a member at www.obap.org



Our dedicated team of volunteers has been hard at work creating the first Girls LAUNCH day. For the past few months, we've focused on every detail to make this event enriching and exciting for every attendee. It's been such a labor of love because we all recognize how truly transformational exposure to the field of aerospace can be. And we understand that when a child can see their dreams, they take one important step closer to achieving them.

As you read through this Girls LAUNCH Magazine, we hope you're inspired by the stories of women and girls who dared to be different. We hope you'll learn something new that sparks your interest in aerospace, and we hope that you'll step a bit further out of your comfort zone and commit to taking the first steps toward the career of your dreams.

We're so thankful to every volunteer, our generous sponsors, and to each presenter for being a part of this day. Your dedication to creating opportunities for hundreds of girls makes all of this possible. The gift of your time and your resources will cause a ripple effect that will lead to a more inclusive industry for us all.

Sincerely,

Tennessee Garvey
OBAP Programs Chair



“Girls LAUNCH is about helping girls see a path in aerospace. It’s about exposing them to the limitless possibilities they rarely hear about. Once they can see it, we know they can be it.”



**OBAP Chairwoman
Vanessa Blacknall-Jamison**

As a little black girl growing up in the shadow of the Old Stapleton Airport in Denver, Colorado, I was always mesmerized by the huge airplanes that flew over my home every day. I always wondered about the glamorous lives of the pilots, and flight attendants, and all of the people who made the many moving parts at the airport work. When I traveled to college, I stopped and watched the many people associated with flying but I never saw anyone who looked like me.

My Mother, M. Rae Taylor was asked by Braniff Airlines to informally recruit minorities for Flight Attendant positions. Around the same time, I graduated from college and received a job offer to become the youngest

Financial Aid Counselor at the University of Southern California. I knew mom was helping others become flight attendants but I never thought this was the right position for me. Once mom and I spoke intentionally about the flight attendant position, my mind began racing, visualizing my childhood dreams, being on one of those airplanes traveling the world, so I made the decision to become a flight attendant. A decision that propelled me into the aviation and aerospace industry.

That’s why Girls LAUNCH is so important to me and to OBAP. Girls LAUNCH is about helping girls see a path in aerospace. It’s about exposing them to the limitless

possibilities they rarely hear about. Once they can see it, we know they can be it.

I’m so elated you’ve chosen to be here with us today, and that you’re now a part of a growing family of women and girls who will find their passion and soar.

This is our moment.

Sincerely,

Vanessa Blacknall-Jamison
OBAP Board Chair

Celebrating Our Supporters



Mr. Cedric Davis

Celebrating Our Supporters



Ms. Susan White

Overcoming a Disability to Soar to New Heights with Leslie Irby

"I love people! I love educating others on the importance of understanding that people with differing abilities are just as capable of obtaining success in their lives as anybody else."



Leslie Irby is the first African American woman with a disability to receive a pilots license in the world.

1. Tell us about a typical day at work.

There is no such thing as a typical day at work for an entrepreneur. By morning, I can be found networking with organizations to further advance the global communication between individuals with differing abilities and fortune 500 companies through Keynote Addresses.

By mid-day, you can catch me running a success hair salon catering to woman with Sisterlocks and natural hair. By evening, you may find me searching trade a plane looking at planes I wish to purchase in my far distant future. Lastly, by night you can catch me studying aeronautical material to keep my brain stimulated with the latest space knowledge.

2. Why did you choose this career?

I love people! I love educating others on the importance of understanding that people with differing abilities are just as capable of obtaining success in their lives as anybody else.

3. How were you first exposed to careers in aerospace?

I was first exposed to careers in aerospace through the ACE program. While in the program, I was able to see careers within the field and instantly fell in love. From Engineers to Pilots, all aspects of aeronautics is fascinating to me.

4. Did you have to overcome any particular challenges

or obstacles to become successful in your career? If so, what were they, and how did you overcome those challenges?

GIRLLLL LET ME TELL YOU!! Honestly, obtaining my sport pilots license wasn't that bad. I trained at Purdue University funded by a program called Able Flight, which is designed to give people with differing abilities the opportunity to become licensed pilots. Among 10 individuals, we finished my class with 7 as me being the only female. Outside of that accomplishment, I was later recognized as being the First African American Female with a Differing Ability to hold a pilots license in the world. This was and is a huge honor for me, especially being a woman of color in the shadows of Bessie Coleman.

My challenges came after my sport license.

Obtaining a medical with a differing ability is a nightmare. I had to roll through so many loops and hoops, exam after exam, it was mentally draining. I submitted my med-express application November 26 and I was FINALLY granted my medical September 6th of the following year! It's crazy to think a person with ZERO flight experience can go directly into an AME office and leave with a medical.

Me and others have to take multiple test, wait a while, send more documents, wait again, do a flight test to prove we can fly a plane, THEN (maybe) we can get a medical...now, does that sound fair? I am not one to ever give up on a dream. Now that I finally have my medical, my next goal is to find funding and continue flying. My Aviation dream is to obtain my CFI and be able to instruct other people with differing abilities to fly as well.

5. What do you love most about your job?

I love the ability to help others. I get to make keynote addresses all over

"I also look up to the legacy of Bessie Coleman. Every time a little brown girl gets her wings, I know she smiles down on us all."

the world about inclusion. Life can't get any better than that things.

6. If you could go back and give career advice to your 13-year-old self, what would you say to her?

Don't settle baby girl! Life is not what TV makes it out to be. Change your mind 1000 times

if your heart desires. So what if you have periods where you don't know what you want to do, that's the beauty of life.

Everyday we wake up is a new day to make a new choice. I had no idea my life would have lead me down this road when I was 13, but I'm grateful for the journey. To my 13-year-old self, enjoy the journey baby girl; don't just arrive at the final



destination.

7. What's the most interesting/fun thing you've ever done at work?

QUIT! I worked as a Rehabilitation Counselor for 3 years and every day I would tell my clients to follow their dreams, and don't settle for the small things. I was preaching to the choir. I was telling them to do something that I wasn't even doing myself. So one day, I woke up and said, "TODAY IS THE DAY I FOLLOW MY OWN ADVICE!" I went into the office and put in a 2-DAY notice on Wednesday and was signing my release papers on Friday! I decided to choose me!

8. What type of education or training did you pursue in order to be successful in your career field?

When I became a Rehabilitation Counselor, I received my Masters Degree in Rehabilitation and Mental Health Counseling from Thomas University in Thomasville, Ga. After that transition, to become a pilot, I trained for 7 weeks at Purdue University with their school of aviation and obtained my sport license.

9. Why do you think there are so few women in

aerospace jobs? What can be done to increase the number of women (specifically minority women) in your career field?

Exposure, Exposure, EXPOSURE!! The more they see us, the more people will respect us. Ones first thought is "oh she must be a flight attendant"? We as minority woman are under-represented, under-respected and under-paid. We have to change the narrative so young girls can see us more as equals to male counterparts and continue to advance women of color in aeronautical fields.

10. As a child, what did you want to be/do when you grew up? If it wasn't your current career, what made you choose what you're doing now?

As a child I wanted to be an Air Force fighter pilot! I wanted to be the female top gun. I submitted my application after high school to the Air Force Academy, but got denied because I wouldn't breathe well in the Colorado climate.... so, I switched my focus to other things. I have always had a love for aviation and now advocacy. I have now married the two together and

still follow my dreams.

11. Who helped motivate you or guide you as you progressed in your career?

God. I have always had a strong faith in God and his promises for me life. I also look up to the legacy of Bessie Coleman. Every time a little brown girl gets her wings, I know she smiles down on us all. Her courageous, never settling, ever determined attitude is some of the building blocks I have built my life's foundation on. Because of her, I AM WHO I AM TODAY.



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Airbus A350

Aerospace Engineer Turned Aerospace Executive

Meet Valerie Manning, Senior Vice President Customer Support Airbus

1. Tell us about a typical day at work

Almost every day I speak to the management of an airline or leasing customer somewhere in the world about the operations of their Airbus aircraft and services, and try to help them get what they need from Airbus in terms of support. If I am not traveling to talk to them, then I am working on airline or leasing customer operations with my own team, with others at Airbus or with our suppliers. I work on technical, commercial, contractual, and strategic topics. Generally I need to make decisions to solve customer or Airbus problems - or help others to reach the correct decision.

2. Why did you choose this career?

I love aviation, and I love travelling around the world and speaking various languages. So working toward this role at a European aircraft company with a global responsibility meets both personal and professional objectives.

3. How were you first exposed to careers in aerospace?

During high school, I went to a summer "Minority Introduction to Engineering" camp, where I was exposed to engineering in general, and to aerospace in particular. I made up my mind right then that I wanted to be an engineer.

4. Did you have to overcome any particular challenges or obstacles to become successful in your career? If so, what were they, and how did you overcome those challenges?

Engineering is difficult. I recall how much I felt like I was suffering during my first year of college, but in fact, having that shock and then getting through it, only made me stronger. Last, over the past 15 years I have been working in Europe, and working with people around the world. Learning to work with so many cultures on such a broad range of business and technical topics, and deciding how to act within each in order to be successful in my roles, has been a difficult, if rewarding, challenge. Here I work hard to always be prepared in advance, but also to learn from others with more specific or detailed knowledge than I. On top, I regularly have meetings in German or French languages. Obtaining and maintaining the required language skills has been really quite difficult, and working with so many nationalities every day means that at times we need to work hard to ensure everyone understands discussions in the same way. Here it is often a matter of patience – both with others and myself.

5. What do you love most about your job?

I get to talk about and see aircraft every day, and I get to combine technical and business knowledge to succeed. Last, I love the fact that I can travel all around the world.

6. If you could go back and give career advice to your 13-year-old self, what would you say to her?

Try not to plan everything too closely. Sometimes it is good to let life happen!

7. What’s the most interesting/fun thing you’ve ever done at work?

I am a instrument-rated pilot with an Air Transport Pilots Licence (ATPL) certificate, and I had the opportunity to fly one of our Airbus A350s around southern France (with an instructor in the right seat, of course). Simulators are great, but not quite as exciting as the real thing.

8. What type of education or training did you pursue in order to be successful in your career field?

I followed the classical aerospace engineering path of Bachelors, Masters and PhD in Aerospace. However in addition, I spent two years at a consulting company – meaning I helped other companies improve their own strategies and technologies. Last, I pursued a career in the US Air Force, much of it in the reserves. So this combination of engineering education, business experience, and military exposure helped me to have the proper credibility in addition to providing me with the skills to perform the roles I have held.

9. Why do you think there are so few women in aerospace jobs? What can be done to in-

crease the number of women (specifically minority women) in your career field?

It starts with the education. If there are few women in the engineering pipeline, there will be even fewer who pursue aerospace as a career. So need to get women to simply study engineering. You don’t have to actually become an engineer – engineering graduates are very marketable, even in the field I mentioned above and could go on to law school, medical school, or to become teachers in almost any field. Another thing we can do, is to encourage non-engineers to come to the industry, including in legal, sales, supply chain, strategy and finance. In this way we can broaden the pipeline of women.

10. As a child, what did you want to be/do when you grew up? If it wasn’t your current career, what made you choose what you’re doing now?

I wanted to be a veterinarian until I went to the MITE program.

11. Who helped motivate you or guide you as you progressed in your career?

Through college, it was my father. In graduate school, it was my Ph.D. advisor. During my career, I have had a range of mentors – some assigned to me by my company, but some who became natural advisors as we developed professional relationships. The relationships that developed naturally were usually the most rewarding.

To find out more information about the Minority Introduction to Engineering (MITE) Program, visit https://artofproblemsolving.com/wiki/index.php/Minority_Introduction_to_Engineering_and_Science

Leading NASA's Charge to Put the First Woman On The Moon



Meet Vanessa Wyche the Deputy Director NASA's Johnson Space Center. She assists with leadership of a broad range of human spaceflight activities, including NASA's astronauts, Mission Control, development and operation of human spacecraft in low-Earth orbit and plans for human missions to the Moon and Mars.

1. Tell us about a typical day at work.

My typical day spans overseeing resources to include 10,000 employees (engineers, scientist astronauts and administrative professionals), technologies, and facilities to support the International Space Station and elements of the Artemis missions that will land the first woman and the next man on the Moon with future plans of human missions to Mars. Understanding the overall readiness of missions, including risks and resolution of technical issues.

2. Why did you choose this career?

I always loved to solve problems and figure out how things worked. I also liked Biology. I obtained an undergraduate degree in engineering and a graduate degree in Bioengineering. I started as Medical Device Evaluator at the Food and Drug Administration.

3. What do you love most about your job?

So many things. Developing other people and helping them with their career. Putting people in space. Being a part of planning of missions to the Moon and beyond.

4. What type of education or training did you pursue in order to be successful in your career field?

I obtained an undergraduate degree in engineering and a graduate degree in Bioengineering. After working at NASA, I did not stop learning. I took training offered and/or sponsored by NASA. Including a Fellowship at the UNC Executive Education Program. I am currently a Fellow of the International Women's Forum.

5. Why do you think there are so few women in aerospace jobs? What can be done to increase the number of women (specifically minority women) in your career field?

I think there is not a lot of awareness of our career paths. We need to engage more with external organizations like OBAP, and Society of Women Engineers, NSBE to partner on retention of students of color in aerospace jobs.



6. If you could go back and give career advice to your 13-year-old self, what would you say to her?

I would tell her that she would have many opportunities and to keep an open mind, take risks, be herself, and stay curious. There will be times when you are not selected for positions, but don't be discouraged. Keep pushing forward. I would tell her she has everything to be successful, and enjoy the journey.

7. What's the most interesting/fun thing you've ever done at work?

So many things to choose from, like our mission of putting humans in space, or travelling to partner sites in international locations, or solving problems. I would say a very interesting event was being at Kennedy Space Center when we were processing Shuttles, and sitting in the Commander's seat of the Shuttle that was being prepared to launch a mission where I was the lead manager for the Shuttle Program.

8. Who helped motivate you or guide you as you progressed in your career?

I had many role models and mentors. One was a peer in another org, another a peer in my org and I've also had managers that I felt were great mentors and role models. Another was my brother and my parents. My brother is a chemical engineer. My parents were both educators and I could count on them for wisdom.

Faith Norwood

Student Pilot

Faith is a Houston, TX native and an aspiring pilot.

1. Tell us why you chose to fly?

I chose to fly because I was exposed to aviation by some great people. They presented aviation to me in such a way I could not walk away and not want to pursue it. They were leading examples, they showed me I could fly.

2. How were you exposed to aviation and aerospace?

In 2017 I was invited to participate in a commercial for the opening of the Lone Star Flight Museum. During that filming, the CEO Lt. General Owens greeted us and the museum's educational team gave learning tours of the museum's state of the art Aviation Learning Center, simulator bay and the Texas Hall of Fame. It was in that moment I became interested in learning more about aviation and aerospace. It was that day, I learned about Bessie Coleman and I knew I wanted to be a pilot.

Today I am a Junior Ambassador volunteer at the Lone Star Flight Museum. During my time volunteering, I have met many pilots and other great people like NASA Astronauts, WWII Pilots; and the elite U.S. Airforce Thunderbirds.

In 2018 I got my very first flight experience with Legacy of Flight Academy and my second flight experience in 2019 with Sister's of the Skies. I am so grateful for all the people who have laid the aviation foundation for me to pursue all the opportunities of aviation and aerospace.

3. Did you have to overcome any particular challenges or obstacles in your journey of flying? If so, what were they, and how did you overcome those

"What I love most about aviation is that it makes me feel like nothing can hold me back. I can soar in everything I choose to do. When I fly it feels like I lose all of my problems"

challenges?

I didn't have any challenges to overcome. I was very open to instruction and never had a fear of flying.

4. What do you love most about aviation?

What I love most about aviation is that it makes me feel like nothing can hold me back. I can soar in everything I choose to do. When I fly it feels like I lose all of my problems.

5. What's the most interesting/fun thing you like about flying?

The most interesting/fun thing to me about flying is aerobatic flying demonstration. I enjoy the thrill and the challenges. It is my dream to become a U.S. Air Force Thunderbirds Pilot.

6. What type of education or training did you pursue in order to be successful in your career field?

I haven't yet become a private

pilot. I am working on doing so. I am currently enrolled in an online ground course.

7. Why do you think there are so few women in aviation? What can be done to increase the number of women in those fields?

I think there are so few women in aviation because they aren't being being exposed to it; social standards and barriers are what I think are hinderances. Women being the face of aviation will help inspire other women to pursue career and opportunities in aviation and aerospace.

8. What did you want to be when you were growing up, and why did you choose what you are doing now?

I've always wanted to be an inventor (I still want to be one), a scientist, an architecture engineer, and an astrophysicist. I am very smart and believe I can master everything I want to be. I have a profound love for design, space, and science. Becoming a licensed pilot has become my first goal and I will succeed.

9. Once you are done flying, what do you want to do?

I may never be finished flying. I will stop when my body says it is time to retire. I am an early college high school student at San Jacinto College in Houston, TX. Upon graduating from high school I will receive my associates degree.

I plan to move forward to a major university and achieve my degree in Architecture Engineering. I will work for an architecture group and start my own architecture business.

"I think there are so few women in aviation because they aren't being being exposed to it."

10. Who are your mentors or who helped motivate or guide you through your journey continue to fly?

I would like to give a special thanks to my parents and extended family who are my number one supporters; my mentors Dr. J.A. Rob and Mrs. Kimberly Rob of PBMA/Ladies of Great Purpose Organization of Houston, The Lone Start Flight Museum, The Organization of Black Aerospace Professionals, the Dr. L.C. Carter Foundation, Aviation Community Foundation, Legacy Flight Academy, and Sister's of the Skies.

All of these great people motivated me and continue to motivate me to fly. An honorable mention to Mrs. Inge Ryan of Inge Flies. Mrs. Inge has spent the most time with me; one on one teaching me and advising me as I become a pilot.

Delilah Jones-Bardlette

United Airlines General Manager at Newark Liberty International Airport

Delilah is has served as in various roles at United Airlines over the past 22 years to include including Reservations, Airport Operations, United Clubs and Loungers, Customer Experience and Catering .

1. Tell us about a typical day at work.

My day is full of wonder. One of the great things about leading people and managing process is, no day is ever the same. But let me try to describe a “typical” day.

A “typical” workday for me involves meetings, emails and observations. My day begins with a review of my calendar to ensure I have an understanding of how my day should flow. I meet every morning with my team to hear from them on how our people and operation are doing. A check on the health of everything.

I am participating and contributing in various meeting throughout the day. Discussing everything from million-dollar budgets to boarding strawberry yogurts. One of the highlights of my day is when I walk through my facility. I get to interact with my 1000-person team and inspire them to excellence. The facility itself is a newly commissioned, 190K square foot. facility with all the trimmings. We moved in June 2020.

It is truly an honor to shepherd such a team and facility.

2. Why did you choose this career?

This industry chose me. If you have heard my story it is truly one that is different. In 1997, I was a high school dropout who attended a job fair at the local welfare office. United Airlines participated in a “Welfare to Work” program and was a part of the job fair. With God’s favor, motivation and hard work, the

rest is history in the making.

3. How were you first exposed to careers in aerospace?

Again, it looked like happenstance but, it was truly destiny!

4. Did you have to overcome any particular challenges or obstacles to become successful in your career? If so, what were they, and how did you overcome those challenges?

Yes, I had to overcome challenges. I will highlight two.

First, I had to overcome the obstacle in my mind that I was not good or smart enough. This took some time to overcome. As I applied myself, my successes started to create a different story for me. It became less about where I was from (my past) and more about where I was currently and what was available in front of me.

Second, I had to overcome not being me. When you don’t have a good understanding of the value you bring to any given situation, you can take on traits of the environment around you mimicking success instead of being your authentic, successful self.

A boss or two helped me see me. By encouraging me in projects or to do more, I started to understand it was ME they were after, not some copy of someone else.

5. What do you love most about your job?

MY TEAM!!! I love developing



“Girl get ready! This is about to be one heck of a ride. Listen, when you get on the ride don’t look back. Buckle in tightly and hold on to what you know. Be confident that you will be ok. ”

people. Based on what I shared in the previous question, my goal in life, is to get people to that point sooner. Or, if they are later in life, just get them there!

6. If you could go back and give career advice to your 13-year-old self, what would you say to her?

Girl get ready! This is about to be one heck of a ride. Listen,

when you get on the ride don’t look back. Buckle in tightly and hold on to what you know. Be confident that you will be ok.

The turns and twist come, roll with them. You are built for this. You have other people on the ride with you. Be ready to lead them through this process as well. You have always been a leader. You will just lead in different, in unknown spaces. Sometimes, you

will have no control over and may even feel scary. But, you got this! Lead LEADER, Lead!!

7. What’s the most interesting/fun thing you’ve ever done at work?

Oh, there are many. I had the opportunity to live in Hawaii for almost for years so that in itself is fun and interesting. We were selecting a vendor to do some work for us. As a part of the selection process, we flew to each of the vendor’s headquarters (Hong Kong, France and LA). At each stop, I had the most exquisite culinary experience.

It was mind blowing to see (and experience) the food and beverage that can be created for an airline experience. I am truly downplaying this thing. Lol! We would be here forever if I told you everything

I had the opportunity to travel to France for business. During the trip.

8. What type of education or training did you pursue in order to be successful in your career field?

Coming into my career, I did not have much education or training. In my mid 30’s, I went back to school and earned a degree in Business. I also sought and completed Social- Emotional training as well as Executive Leadership Coaching. My success is dependent on my ability to lead and transform the lives of people.

9. 9. Why do you think there are so few women in aerospace jobs? What can be done to increase the number of women (specifically minority women) in your career field?


Historically aerospace jobs have been traditional roles held by men. Especially roles like pilots, engineers, mechanics or C-Suite. To change the trend of anything takes time. Over the past 10-20 years, we have seen growth in the number of women these roles. I think exposure impacts pursuit – if you don’t know or see what’s possible, it can seem to be off limits or improbable to obtain.

10. As a child, what did you want to be/do when you grew up? If it wasn’t your current career, what made you choose what you’re doing now?

As a child, I wanted to be a lawyer. Opportunity to travel the world, work anywhere in the world, develop people and build networks encouraged me to transition to an aerospace career.

11. Who helped motivate you or guide you as you progressed in your career?

Various leaders and family members helped motivate me. To be honest, I did not have people who truly provided me with career guidance. That is one of the reasons I am so passionate about it now. But my biggest motivation was the girl I used to be, and the woman should could become.



Leading from the Front A Champion for Women and Diversity in Aerospace

Meet Vanessa Blacknall-Jamison, who serves as change advisor and leadership coach (ACC) with the Federal Aviation Administration, and the Aviation Safety and Flight Standards Leadership Development Team Change Management Group. She also leads OBAP serving as the Board Chair.

1. Tell us about a typical day at work.

My morning starts at 0630 Mountain Time with prayer. Centering my spiritual needs helps me to focus and maintain a balance on what is truly important in my day and work. I schedule an hour for daily prep to map out my day, then the fun begins. I have meetings practically every hour on the hour and I proudly wear the title (with so many others), ZOOM, Microsoft Teams, Webex, or Go-to-Meeting Queen. My meetings range from conducting project Discovery, consulting on projects, coaching leadership, mentoring, change management development and training, and staff meetings.

2. Why did you choose this career?

Actually, I never thought about joining the Federal Aviation Administration (FAA) because I thought it was too regulatory. However, once I spoke to a dear friend about the Aviation Safety

Inspector – Cabin position, I knew it was the job for me. I remained in the ASI position for four years and now I am in my dream job – Change Management Advisor and Leadership Coach. The skills I have developed will take me beyond my dreams when I decide to retire.

3. How were you first exposed to careers in aerospace?

I lived ten minutes from the old Denver Stapleton Airport. Airplanes flew over my house constantly. As kids, we thought we could race the planes as they were approaching. When the bigger planes would fly over, we literally would say on the telephone, “Hold on, plane flying over.”

I would lay in our front yard as the belly of the plane flew over and wondered where are they coming from, where are they going, what does it look like and how far could this plane fly?

When I finally had the opportunity to fly, I was hooked. I knew this was the future, I felt like the cartoon, The Jetsons!

4. Did you have to overcome any particular challenges or obstacles to become successful in your career? If so, what were they, and how did you overcome those challenges?

Many obstacles! Promotions, Leadership Development Programs, being an outspoken African American woman, having an opinion, and receiving less pay than my male counterparts. Honestly, I learned to love myself and understand my self worth without someone telling me.

I learned these lessons early and I was determined not to let these obstacles define who I really am and who I want to become. Using a vision board truly helps too! But above all, knowing God has plans for me always helps!

5. What do you love most about your job?

My interaction with people and knowing I am helping them reach their full potential. Working with a core group of people pulling in the same direction and having lots of fun and laughter.

6. If you could go back and give career advice to your 13-year-old self, what would you say to her?

Love yourself, know that everyone does not have your best interest at heart but dream big and don't let anyone stand in your way! Everyone has thoughts and ideas on what you should do or be.

Did you know?

Vanessa Blacknall-Jamison is the first and only non-pilot chair in the history of the Organization of Black Aerospace Professionals in its 44-year history?

Follow your heart, make wise decisions and if you make a mistake, learn from it knowing each new day brings new beginnings and joy. Be kind always!

7. What's the most interesting/fun thing you've ever done at work?

When I traveled for my old job, going to Singapore and Bangkok experiencing new cultures and outstanding food. From this experience, every country I travel to, I always take a mini-tour.

8. What type of education or training did you pursue in order to be successful in your career field?

I have my M.B.A and would love to pursue my doctorate but finances dictate otherwise. Today, you need an undergraduate degree to be considered for most jobs. However, college is not for everyone.

Receiving your A&P License or finding a speciality certification, can be rewarding and fulfilling. You need to determine what is your passion and be dedicated to whatever it takes to get it!

9. Why do you think there are so few women in aerospace jobs? What can be done to increase the number of women (specifically minority women) in your career field?

It's about the awareness of knowing what jobs are in the aerospace industry and girls/women need to see people like them in the field. This industry is so vast and exciting but unfortunately it is not often referred to by schools, school counselors and even parents.

Parents are really the primary key. We need to educate parents, so in return they can educate their children and demand from schools to provide more exposure to this industry.

10. As a child, what did you want to be when you grew up? If it wasn't your current career, what made you choose what you're doing now?

As a child living in the Costello Housing Scheme My dream job was to be a Sports, Public Relations expert. I grew up with boys and I was competitive as they were. But you know what stopped me, I never saw anyone that looked like me and I learned quickly that it was about who you know versus what you know. God's plan has brought full circle. I am helping others, I provide coaching and mentoring, but I don't write press releases and I'm not working in the sports field. I am truly happy and blessed to be involved in this fabulous industry.

11. Who helped motivate you or guide you as you progressed in your career?

My Mother! The biggest compliment I gave her was asking her to be my Maid-of-Honor in my wedding. Mom was always there helping me make good decisions, challenging me to take risks, and always gave the best advice even though I would disagree with her. I lost her two years ago. It's been really hard. However, I have a beautiful daughter, handsome son, and a wonderful Husband of 35 years.

My journey now is to help my adult children navigate through their journey as long as I can!

Future Forward: Financing Your Education

By Shakar Soltani, winner of the Taco Bell Live Mas Scholarship

Financing your education or training can seem like a daunting task, but there are simple steps you can take to help you navigate the process and find the money you need to succeed!

1. Sell yourself using past examples of excellence! The committee doesn't know you, but they want you to be their success story. Make them trust you to give you money by bringing up a time you succeeded.
2. Maintain a humble/positive/hardworking tone, this is very important. If you say anything about your challenges follow it with an uplifting sentence. For example: I grew up in a low income household and watched my parents struggle to put food on the table (sad). However, these experiences growing up taught me the value of the dollar and showed me that regardless of my socioeconomic background I can still accomplish my dreams as long as I have a good attitude and work hard (positive).
3. Be specific. I read an essay that said "I am a leader in everything I do". Elaborate on that further and give me an example of a time you led.
4. Always have someone proofread your essay before you submit it. They can catch mistakes you may have missed and give you constructive criticism. The more people proofreading your essay, the better! If you attend a college/university, your school may have a place where you can take your essay to be professionally reviewed for free, so ask around!
5. Don't submit the same essay for every scholarship you apply for unless it asks for the exact same thing. I won the NGPA scholarship which required me to write how I'm involved in the LGBTQA community and what got me interested in flying. I also won the Taco Bell Live Mas Scholarship, which required me to show



how my passion will impact the world. Both were winners, but had I submitted the same scholarship application, they would have lost because they aren't asking for the exact same thing.

6. Follow careful instructions (remember, they're looking for reasons to weed you out! Don't give them any reason to. A common example of people not following instructions is submitting their application on word when it should be submitted through a PDF. One time I almost lost a scholarship because I almost missed the tiny print where it said to include a picture of my drivers license, so pay attention!
7. Make an outline/brainstorm before you start writing. Think about things that make you special and stand out. Remember these committees are not expecting some fancy essay, they just want to get to know you.
8. Apply for everything! Don't be discouraged when you don't win. Also, it's extremely important to apply for scholarships when they come out,

because they may not be out again till next year. Some scholarships are due at a certain time too, not just date, so make sure you pay attention to that as well!

9. Make sure your letters of recommendation include the person who is recommending you name, title, phone number, email address and how long they've known you for/how did you meet.

Make sure it is dated and no older than two months prior to the submission date. Also make sure they give examples of how wonderful you are and are thorough. For example instead of saying "Sally is so hardworking" a better letter would be "Sally is so hardworking and proves this as she tackles a full time job and flight training three times a week."

Finding the Money: Top tips on how to look for scholarships

By Shakar Soltani, winner of the Taco Bell Live Mas Scholarship



Scholarships aren't just for whiz kids. They're not just for athletic prodigies. And they're also not just for the lucky few. The truth is: there are scholarships out there for everyone.

Outside scholarships may seem like a far fetch...but they're not as far as you think. Service clubs, companies, and charities give out about \$2 billion in private scholarships each year. Roughly 1 million students receive this support – meaning 1 out of 13 students wins a scholarship. The average of these scholarships is \$2,000. So are you ready to start looking?

Places to look for scholarships

- Your school's scholarship portal
- EVERY business/store/restaurant/church/hotel more than likely has one. Go online and find out if you're eligible for it
- Aerospace Scholarships book by Carl Valeri (\$10)
- <http://www.aviationcareerpodcast.com/scholarships/>

Very lengthy book, but take the time to look at it one page at a time. Highlight/tab/screen-shot the scholarships you are eligible for (I say you italicized because what I'm eligible for may be different than what you are due to my age/gender/education). Make yourself a calendar of scholarships you're eligible for.

Social Media

Social media is a GREAT place to find scholarships! Like & join these pages/groups to stay updated on scholarships. Sometimes someone will post something in these groups saying "it's my 10 year delta anniversary, so I'm giving one person a \$1,000 scholarship etc" or one time a beloved member of WAI passed so they created a scholarship in her honor and promoted it on social media. Great way to stay in the loop :)

Facebook:

- LIFT-Ladies in Flight Training
- FAST-Female aviators sticking together
- Aviation Scholarships

Instagram:

- Avscholarships
- Women of Color in Aviation

Scholarship Calendar

Check out this calendar for scholarships. It's awesome because you can filter it out by your rating/cert/educational level. Although I love this calendar & highly recommend it, sometimes it misses a few scholarships that are available, so that's why it's important to always keep an eye out everywhere. Social media, on this calendar & through organizational scholarships.

<https://www.blondsinaaviation.com/aviation-scholarship-calendar/>

Organizational Scholarships

Despite the name, you don't have to be gay/black/a woman to apply for these scholarships. Typically, with organizational scholarships they want to make sure you're involved within the organization. So don't just join, be active! Get your money's worth. Go to their conferences, find a mentor, network, volunteer & apply for these scholarships :)

The Organization of Black Aerospace Professionals (OBAP)

\$90 a year
<https://www.obap.org>

Sisters of the Skies

<https://www.sistersoftheskies.org>

Women in Aviation International (WAI)

\$45 to join or \$32 if student
<https://www.wai.org>

Latino Pilots Association (LPA)

\$40 a year but free this year because of Covid
<https://latinopilot.org>

The 99's

\$35 for student pilots & \$65 for non-students
<https://www.ninety-nines.org>

Experimental Aircraft Association (EAA)

\$50 a year
<https://www.eaa.org/ea>

Aircraft Owners & Pilots Association (AOPA)

\$79 a year
<https://www.aopa.org>

National Gay Pilots Association (NGPA)

\$49 to join or \$20 if student
<https://www.ngpa.org>

Learn more about Shakar Soltani's amazing journey and view her Taco Bell Live Mas Scholarship Award-Winning Video:
<https://youtu.be/rgkOSD4li8o>

Sandra Kent Bogguess

United Airlines Inflight Safety Specialist Services

Sandra is responsible managing onboard inflight safety policies and procedures, working collaboratively with the FAA and TSA to accident/incident investigations as Technical Advisor on the NTSB Technical GO Team for Inflight

1. Tell us about a typical day at work.

My typical day at work begins the night before by viewing local, USA and international news-feeds for awareness and how that might affect daily operations for our flights, flight crews and customers the following day. Before going to work, I check for new stories and updates to previous news stories from the night before.

As a Specialist for Policy, Procedures and Wellness, my job includes all things safety and security related and when flight attendants are providing food and beverage services or administering first aid to our customers, I'm always off running to get things done ASAP when I sit down at my desk. It's an extremely fast pace and sometimes decisions must be made at a moment's notice.

Communications can be challenging because our 25,000 people workforces are based all over the world but when we need to get the word out, it needs to happen simultaneously. I review each incident and accident report from the 24/7 duty manager to identify and address areas of risk for aircraft damage or serious injury to employees and/or passengers exists.

Then I meet with the team to get a preliminary briefing from the investigation team. As a team, we review detailed findings of closed investigations and develop recommendations for the crews moving forward. Once we've determined a course of action, we work with the

training and communications teams on when and how to communicate information to our crews.

2. Why did you choose this career?

My aviation career was accidental. I was initially entered the field took the position during a time period when I was laid off from another non-airline job. Once in the airline business, I realized there were so many career options inside one company that I decided this was the best place for me.

3. How were you first exposed to careers in aerospace?

I was exposed to aerospace careers after I graduated from college by one of my former college roommates who had become a Director of Student Affairs at a local college and was responsible for bringing in various companies for Career Fairs on college recruitment days. Airline companies were among the various companies onsite recruiting.

4. Did you have to overcome any particular challenges or obstacles to become successful in your career? If so, what were they, and how did you overcome those challenges?

Initially, I thought developing a voice in a male dominated workplace in a safety related field might be an issue. However, once I knew that my technical credentials and knowledge were



“Don’t just chase the money! Don’t just chase the traditional! Be open to examine your strengths and determine which industries require your skillset. ”

exemplary, I handled my interactions with confidence, while also being open for collaboration.

5. What do you love most about your job?

I love the fact that every day brings a different challenge, whether it's deciding on policies and procedures to manage pets in the cabin, managing crews that suddenly find themselves in an international city with political unrest or figuring out protocols for managing the personal health of crewmembers and customers during COVID-19.

6. If you could go back and give career advice to your 13-year-old self, what would you say to her?

Don't just chase the money! Don't just chase the traditional! Be open to examine your

strengths and determine which industries require your skillset. Talk to people in a wide range of professions to get their perspective on real-world aspects of their jobs and careers! Above all, don't be afraid to have a "Do-Over" mindset if your first career path doesn't work out.

7. What's the most interesting/fun thing you've ever done at work?

I participated in United's Boeing 777-300 emergency evacuation certification drill by the FAA as an evaluator/timer to ensure that the crew conducted a mock evacuation, opening doors in less than 15 seconds. I was selected to participate in the 1st All Women's flight, where women operated every aspect of the flight operation including dispatch, mechanics, pilots, flight attendants, baggage handlers, and aircraft marshallers when United took delivery of a brand-new Boeing 737 from Boeing's factory in Seattle and flying to Chicago's O'Hare airport.

Other highlights include being on set as the technical safety consultant for United's safety video demonstration film and getting travel tips from Olympic athletes that appeared in the shoot. The athletes were 2016 Decathlon champion Ashton Eaton, swimmer Missy Franklin and trampoline athlete Logan Dooley. And finally, a moment that was truly special happened in 2019 while I was working on another film shoot. I met Spiderman who starred in our safety video who later graciously made a personal face-time call for my 4-year-old nephew's birthday.

8. What type of education or training did you pursue in order to be successful in your career field?

My undergraduate BA degree was a multi-disciplinary degree in criminal justice, political science and psychology and my MS degree

was in Aviation Safety Management. I also completed a graduate executive business course in Positive Leadership from the University of Michigan Ross School of Business.

9. Why do you think there are so few women in aerospace jobs? What can be done to increase the number of women (specifically minority women) in your career field?

In some instances, the aviation/aerospace career track is simply unknown to women in general except for the more recognizable roles as pilot or flight attendant. Organizations like OBAP are leading the path by simply spreading awareness to the variety



of career option held in the aerospace field and emphasizing STEM courses in addition liberal arts study.

10. As a child, what did you want to be/do when you grew up? If it wasn't your current career, what made you choose what you're doing now?

I wanted to be in education as a teacher or principal, social worker for juveniles, or a lawyer.

11. Who helped motivate you or guide you as you progressed in your career?

Other women and men from various departments and areas of expertise in the aerospace industry became my mentors and helped me evaluate future opportunities for personal and professional growth and continue to do so to this day.



Rhonda Arnold

Chief Community Relations Officer for the Houston Airport System

Meet Rhonda Arnold, Chief Community Relations Officer for the Houston Airport System (HAS) the 4th largest city in the United States of America. Ms. Arnold develops and implements plans that enhance the Houston Airport System's image to increase public awareness of its operations and activities.

1. Why did you choose this career?

It chose me. I have a background in strategy, education and law. It was a great fit as I am an ambassador on behalf of Houston Airports and the City of Houston.

2. Tell us about a typical day at work.

My day begins at 7:00 am and ends around 8:00 pm daily. A typical day at work is reviewing my schedule for meetings that relate to aviation outreach in the community. I attend seminars and webinars that relate to aviation education,

careers in aviation and lately how the airport is handling this pandemic to the travelling public. I work closely with senior staff to advise them on the current issues that impact the community as it relates to aviation.

3. What's the most interesting/fun thing you've ever done at work?

I met the Tuskegee Airmen and was responsible for bringing them to the Houston Airports and Wings over Houston with our collaboration with Aldine ISD. I have also met Mae Jamison (first black Astronaut) Jeanette Epps (NASA has assigned astronaut Jeanette Epps to NASA's Boeing Starliner-1 mission, the first operational crewed flight of Boeing's CST-100 Starliner spacecraft on a mission to the International Space Station) Vanessa Wyche (friend and Link sister History as First African American Female Deputy Director of NASA Johnson Space Center and Pilot Tammie Jo Shults safely landed the Southwest Airlines plane after an engine exploded.) GIRL POWER!!!

4. How were you first exposed to careers in aerospace?



Erika Armstrong

Aviation Professor at MSU Denver
Author of *A Chick in the Cockpit*
VP of Business Development at Advance Aircrew Academy

From the front desk of a small FBO in Minnesota to the captain's seat of an international commercial airliner, Erika Armstrong has experienced everything aviation has to offer. During her piloting career, she was a Red Cross, charter, corporate, cargo, hazmat and air ambulance pilot flying 28 different aircraft before going to the airlines. Today Erika has amassed over 500,000 followers on LinkedIn where she shares her interesting perspective on current events in the aviation industry.

My parents would take my brother and I to Hobby as children to watch the planes and eat Cadbury chocolate biscuits. My uncle Thaddeus Scott and Alan Scott were both interested in aviation. My uncle Thaddeus worked with Continental Airlines for over 30 years and flew on the Concorde and my uncle Alan was actually an aviator, he tested/passed to be a Tuskegee Airman and is part of the oral history at the Moton Field in Tuskegee, Alabama.

5. Did you have to overcome any particular challenges or obstacles to become successful in your career?

Yes. The ability to persevere in lean times and not to listen to the static. What God has for you is for you. I overcame by continuing to educate myself, praying and continuing to believe that God is with me, no matter what.

6. What type of education or training did you pursue in order to be successful in your career field?

I have a law degree, speak Spanish and I am an excellent communicator and influencer (connector).

7. Who helped motivate you or guide you as you progressed in your career?

My parents supported and encouraged me. Most importantly I trust God and depend on him and thank him for all of his blessings.

8. Why do you think there are so few women in aerospace jobs?

We need more women in STEM Careers. It is improving but we need more. What can be done to increase the number of women (specifically minority women) in your career field? More enrollment at Aviation Institutions of Higher Learning such as TSU Aviation, Embry Riddle. Also, it is very important to look at engineering, science, math and technology fields with innovation.

9. As a child, what did you want to be/do when you grew up?

A lawyer. I worked in the that field for a while and then transitioned over to a strategist which I am able to help and develop plans: which fits my personality and gift more.

10. If you could go back and give career advice to your 13-year-old self, what would you say to her?

Take your time. It will be alright.

1. Tell us about a typical day at work.

There is no such thing as a typical day in aviation, which can be good or bad! Since I have worked in both Business Aviation and the Airlines, there is a difference in how your days look.

For one example, when I flew air ambulance, I was on call all the time so most of my flights looked like this: Get a call at 0200 that an organ donor had passed away and an organ recipient was on their way to a hospital so it was my job to fly a medical crew to the donor's hospital and then fly them to the recipient...as quickly as possible. In the middle of the night, you're working most by yourself. You have to get your weather, file your flight plans, get the coffee for your passengers, pull your airplane out of

the hangar, preflight and get in the air. Since I flew in Minnesota, I also often had to shovel the snow away from the hangar and work outside when it's well below zero degrees.

Sounds glamorous? It was because of these challenges that I loved it. To see the tragedy of death be balanced with giving someone a new life was the most rewarding moment that any career could provide. The airlines provide a more stable schedule, but not always. One time I was sent to pick up an airplane out of maintenance and was told I'd be back the same day so didn't pack an overnight bag.

Five days later, I was still waiting for the airplane to get done! Now, think about having that schedule when you have children. Who can find daycare for that? It's one of the reasons

why it will always be more of a challenge for women to be a pilot. It's not that men won't sacrifice their careers for having a family, it's just that women are more willing to do it.

2. Why did you choose this career?

I became a pilot by accident! I was working two jobs while attending the University of Minnesota and I still didn't have enough money to pay my rent so I was looking for a 3rd job.

Aviation is 24/7/365 so there was an opening at the front desk of an FBO at the Flying Cloud Airport that had some weird hours that fit into my schedule. I got the job, started learning about business aviation and finally decided to take a flight lesson to see what it was all about. One lesson is all it took. I was hooked!

3. How were you first exposed to careers in aerospace?

I remember in elementary school when we had career day, they took the boys into one room and the girls into another. I was told I could be a secretary, a teacher or work in a grocery store. Never once did I ever think about being a pilot growing up. The only woman pilot I'd ever heard of was Amelia Earhart and things didn't work out so well for her so I never thought about it. I assumed it would just be too hard and not something girls do. You can throw



"It's one of the reasons why it will always be more of a challenge for women to be a pilot. It's not that men won't sacrifice their careers for having a family, it's just that women are more willing to do it."

that idea out the window! It will take a few generations, but the perception of what girls can do has changed. There are still only 5% of women who are airline pilots, but I see a lot more women taking flight training and working in business aviation so they're in the pipeline to the airlines. I know Covid had thrown us all off track, but we're going to figure this out!

4. Did you have to overcome any particular challenges or obstacles to become successful in your career? If so, what were they, and how did you overcome those challenges?

So many challenges, it would fill a book, but the biggest obstacle when I first started taking lesson is my own self-doubt. I think this is one of

the reasons why there aren't a lot of young women drawn to being a pilot. You have to have a certain level of ego and self-confidence to believe you can take an airplane into the air by yourself. We have to teach girls that they can do this and to believe in themselves. Using mentors can definitely help with this challenge.

5. What do you love most about your job?

Being pilot changes everything about you. It gives you self-discipline, respect for Mother Nature, and to see the world while having someone else pay for it. When I was flying in corporate aviation (someone's private jet), I got to fly to exotic destinations and stay in luxury hotels!

6. If you could go back and give career advice to your 13-year-old self, what would you say to her?

Yes, I would tell her to NOT TAKE ADVICE! We all have that little voice inside that knows what's wrong or right so trust yourself. I too often listened to other people and did what they said to do, ignoring that little voice, but that voice usually turned out to be right. The other thing I would tell her is to not be afraid to ask for help. To ask questions to a mentor. They've already walked the path so might as well gather what they've already learned. You're never too young to net-

work so ask your parents to go on LinkedIn and find some pilots in your area. You'll be surprised to find that many pilots will be willing to share their story and information.

7. What's the most interesting/fun thing you've ever done at work?

So many things! I got to fly to Australia, Maui, New Zealand. I got to fly tourists in a B727 over the Grand Canyon. I flew movie stars, politicians, CEOs and the 1% of the 1%. I even got to fly the All-Star Wrestlers around for a couple weeks.

8. What type of education or training did you pursue in order to be successful in your career field?

If you're in aviation, you're always studying something! If you want to go the airlines, you'll have to earn your BA or BS degree. The great thing is that there are some great programs online. The strange thing is that you don't necessarily need to have an aviation degree. Actually, it's better to not have an aviation degree. Companies want to see a well-rounded person. Being a pilot is not about being smart. It's about having emotional intelligence, being calm under pressure, logical, and a good sense of humor (because you'll need it)!

9. Why do you think there are so few women in aerospace jobs? What can be done to increase the number of women (specifically minority women) in your career field?

Simply having interviews like this helps! We just don't expose girls to aerospace so we need to start early. The irony of STEM programs is that now we've set another barrier up. It makes future pilots think they have to be in a STEM program to be a pilot. It's not true. While I love what STEM is doing, we have to recognize that we might unintendedly be setting up another hurdle.



10. As a child, what did you want to be/do when you grew up? If it wasn't your current career, what made you choose what you're doing now?

I think a lot of little girls do. We love animals and want to help them but in biology class, when I was dissecting a pig and gagging the entire time, I realized it wasn't just about petting animals and that maybe I needed to find something else. I also wanted to be a journalist so attended college for that and it paid off years later. I get to write about aviation so my articles are found in a dozen different magazines, I have 500,000 followers (mostly LinkedIn) and I am the author of A Chick in the Cockpit (shameless plug. It can be found on Amazon).

11. Who helped motivate you or guide you as you progressed in your career?

I had many unintentional mentors. They didn't realize I was using them as a guide, but I was paying attention. I had a chief pilot who was a big advocate for me since he saw the barriers I was being faced with. He finally convinced our boss to let me have a chance and that's I ever asked for. Just give me a chance. I have many discrimination stories but for every one of those, I have a story where someone was willing to help.

Soaring From Guyana to the United States

Meet Beverly Drake the Program Manager in the Office of Government and Industry Affairs at the National Transportation Safety Board (NTSB).

1. Tell us about a typical day at work.

In a typical day at work, as Program Manager/Forum Manager in the office of Government Affairs, I work with Modal Office (aviation, marine, rail and hazardous material, and highway) and NTSB's five Board Members to execute transportation safety forums. I also serve as the Federal Women's Program Manager and work collaboratively with the girls and women to discuss issues that affect their personal and professional life.

In my last position as the first and only black woman to serve as a senior aviation accident investigator/analyst, I investigated over 300 small and large-scale high-profiled aviation accidents and served as accredited representative for several foreign investigations.

2. Why did you choose this career?

As a child living in the Costello Housing Scheme

in La Penitence, a suburb of Georgetown, Guyana, I initially wanted to be a doctor. I started a Chemical/Biology degree program at the University of Guyana, with the goal of being a doctor, but after learning that they were looking for pilots and engineers to pursue a program at Embry Riddle Aeronautical University (ERAU), I applied. Back then it wasn't STEM, it was a focus on science, physics, chemistry, and biology.

My dad always wanted to be a pilot, and subscribed to Aircraft World. Although he would take me to the airport to watch airplanes. I never thought I would fulfill my father's dream of becoming a pilot. But I must say, he steered me in that direction, and I gravitated toward it.

3. How were you first exposed to careers in aerospace?

The Government of Guyana was interested in training young people to be pilots and they also

were aware there were no female pilots. I was one of 12 students selected, nine young men and three young women. We all were excited and nervous, knowing that was an honor had been bestowed upon us. Being the talkative one, I was also selected as the Liaison Officer for the group and my role was to work with the school officials and the students so that we all could be successful.

Six young men and 2 young females completed the course and became military pilots flying the Britten Norman Islander. I along with three other young men were selected to fly for the airline, Guyana Airways Corporation. It was there that I learned to fly the Twin Otter, DHC 6 and the Hawker Siddley 748. I received my type rating on both turboprop airplanes.

4. Did you have to overcome any particular challenges or obstacles to become successful in your career? If so, what were they, and how did you overcome those challenges?

As the first female pilot flying for the Guyana Defense Force, Guyana Airways Corporation and the first black female investigator for the NTSB, all predominantly male professions I was not given any special treatment. Although it was hard work, I had mentors and sponsors who helped me in my career journey. I am pleased that the NTSB does have a few female pilots, some who are in key positions in the Office of Aviation Safety.

But there is room for many more female pilots. One of my mentors was Dennis Jones, a senior aviation investigator at the Safety Board, and also an aerospace engineer, a former flight instructor, aviation mechanic and a graduate of Embry Riddle. He has been my mentor since I joined the NTSB and he spent a lot of time sharing his experiences with me. He was a very dedicated employee and he was always supportive of my career and kept encouraging me to pursue additional aviation courses.

5. What do you love most about your job?

As a pilot/investigator, the payoff for being an

investigator is that you can make a difference. When you make a recommendation to the FAA and you see it published, and you know that it's prevented accidents, you feel good.

6. If you could go back and give career advice to your 13-year-old self, what would you say to her?

I would tell her to follow her dreams and passion and listen to her parents and sometimes counselors, they will always want the best for you. I try to give back also, that is why I go to Elementary, Middle and High Schools to talk to the kids so that they can see that a young girl from the South America can come to America as a young woman, pursue an aviation career, fly as a pilot under scary conditions and still achieve her love and passion.

7. What's the most interesting/fun thing you've ever done at work?

Hosting an event with underrepresented kids at NTSB and introducing them to fellow female pilots, engineers and women at the NTSB who have STEM careers. I also participate in bring your kid to work day and I was able to convince my neighbor's son Brian to pursue a career as a pilot. Brian is currently a senior pilot in the US Air Force with over 1800 flight hours and is qualified on the following airplanes T-6A, TC-12B, C-130E, HC-130P/N, C-130J, and HC-130J.

8. What type of education or training did you pursue in order to be successful in your career field?

I attended Embry Riddle to pursue a course that was tailored specifically for the Guyanese Students. It was an agreement between Embry Riddle and the Guyana Government. I obtained my private and my commercial license as well as my multiengine and instrument rating. At Embry Riddle I started out flying the Cessna 172, and then I transitioned to the Mooney 20C for my high-performance rating, and then I flew the Cessna 310 for my multiengine rating. I enjoyed flying all those airplane as well as

other low wing airplanes.

I went back to school after I got my Bachelor's in Aeronautics and got my master's degree in 2005. Both of my degrees are from Embry Riddle and they are in Aeronautics; I did a dual concentration for my master's; it is management and operations as I felt it would help me if I decide to teach. I am sure I will teach when I retire.

9. Why do you think there are so few women in aerospace jobs? What can be done to increase the number of women (specifically minority women) in your career field?

I think it is an expensive career choice and you will need financial help to pursue this career. By exposing our kids to aviation at an early age and seeking out organizations like OBAP who has the ACE program will encourage parents to support the kids and help them to follow their passion and dreams.

I see myself as an ambassador for women, minorities, my native country of Guyana and aviation safety. I will continue to go to Elementary, Middle and High Schools and talk to the kids so that they can see that a young girl from the South America can come to America as a young woman, pursue an aviation career, fly as a pilot and become an aviation accident investigator.

10. As a child, what did you want to be/do when you grew up? If it wasn't your current career, what made you choose what you're doing now?

As a child living in the Costello Housing Scheme in La Penitence, a suburb of Georgetown, Guyana, I initially wanted to be a doctor. I started Chemical/Biology degree program at the University of Guyana, with the goal of being a doctor. I never thought I would fulfill my father's dream of becoming a pilot, live and work in America, become the first and only female African American Senior Aviation Accident Investigator/Analyst at the NTSB.

11. Who helped motivate you or guide you as you progressed in your career?

My mentor, Dennis Jones, a former Managing Director with the NTSB helped me to progress in my career. Dennis was my supervisor when I joined the NTSB in 1991 as a junior aviation accident investigator. Dennis also served as a senior aviation investigator at the Safety Board, who often at the State Department's request, spent a great deal of time in Africa investigating plane crashes throughout the continent. He is also an aerospace engineer, a former flight instructor, aviation mechanic and a graduate of Embry Riddle. He has been my mentor since I joined the NTSB and he spent a lot of time sharing his experiences with me. He was a very dedicated employee and he was always supportive of my career and kept encouraging me to pursue additional aviation courses.

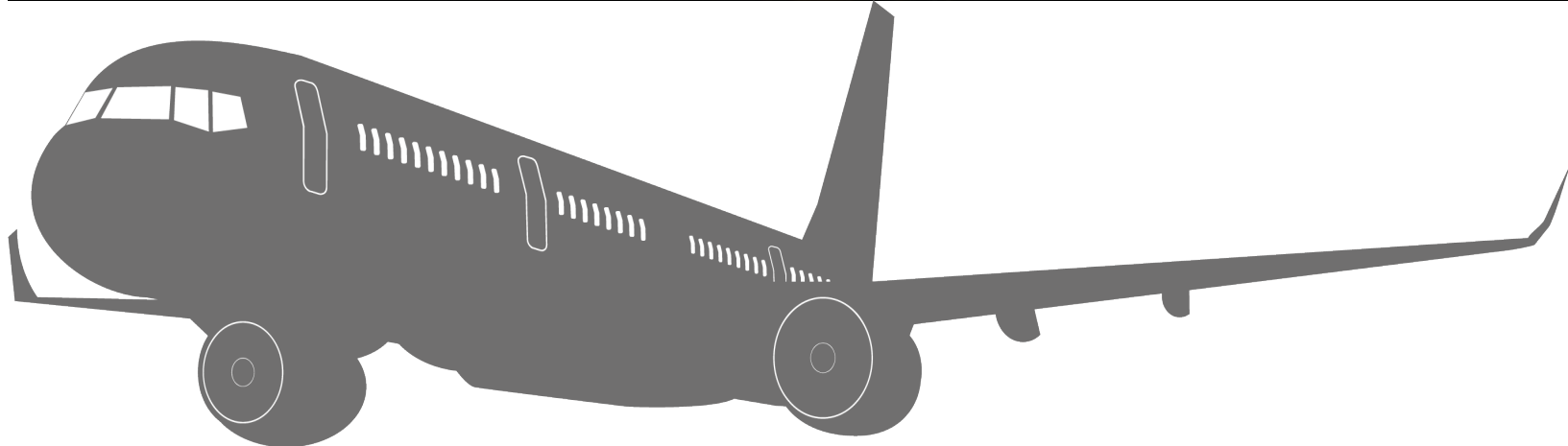
On Oct. 9, 2013, as part of Guyana's 100th anniversary of flight, the government stamped their approval on Ms. Drake's pioneering achievements by issuing local and international postage stamps bearing her image. The stamps commemorated her as the first woman to fly for the Guyanese Defense Force (1977); and the first female commercial pilot for Guyana Airways (1978).



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Jessie Elliot

Delta Airline Pilot

ALPA President’s Committee for Diversity and Inclusion

Jessie is a Seattle, WA, based B-757 & B-767 pilot for Delta Airlines. She is also a committee member of the ALPA President’s Committee for Diversity and Inclusion, which holds a goal of creating greater inclusion for all people within the airline pilot industry and ensuring that recruitment efforts are inclusive of people from diverse backgrounds

1. Tell us about a typical day at work.

While nothing is typical right now, before COVID19, I had quite a variety in my trip. For the last quarter of 2019, I was mostly flying trips to Paris. A typical trip for me was Seattle to Paris, overnight for 24 hours. Then fly to Boston and overnight for 24 hours. Then fly back to Paris for 48 hours. Then fly to Seattle. The whole trip would keep me away from home for 7 days but would give me plenty of time to explore each city that I was in. When the new year came, I had decided to fly more domestic trips so that my body could sort out its time zone quandary! So I started flying these four-day trips that flew to LA for an overnight, then to Hawaii for a long overnight and then red-eye to Seattle.

2. Why did you choose this career?

I absolutely loved the feeling of flight. I remember the first time I ever rode on a passenger jet and I remember that incredible feeling when the airplane takes off. The feeling of your body sinking down into the chair, and yet at the same time your stomach feels like its floating. I loved the excitement of the takeoff and landing. I also really loved the idea of getting to travel for work and getting to stay the night in a different city every night. Now that I am in the career, the overnights are one of my favorite parts about the job. I’ve gotten to explore so many interesting cities that I would never have had a reason to visit. As an added bonus, I get to travel as much as I want on my off days, whether that traveling to visit family or traveling internationally to see a new country!

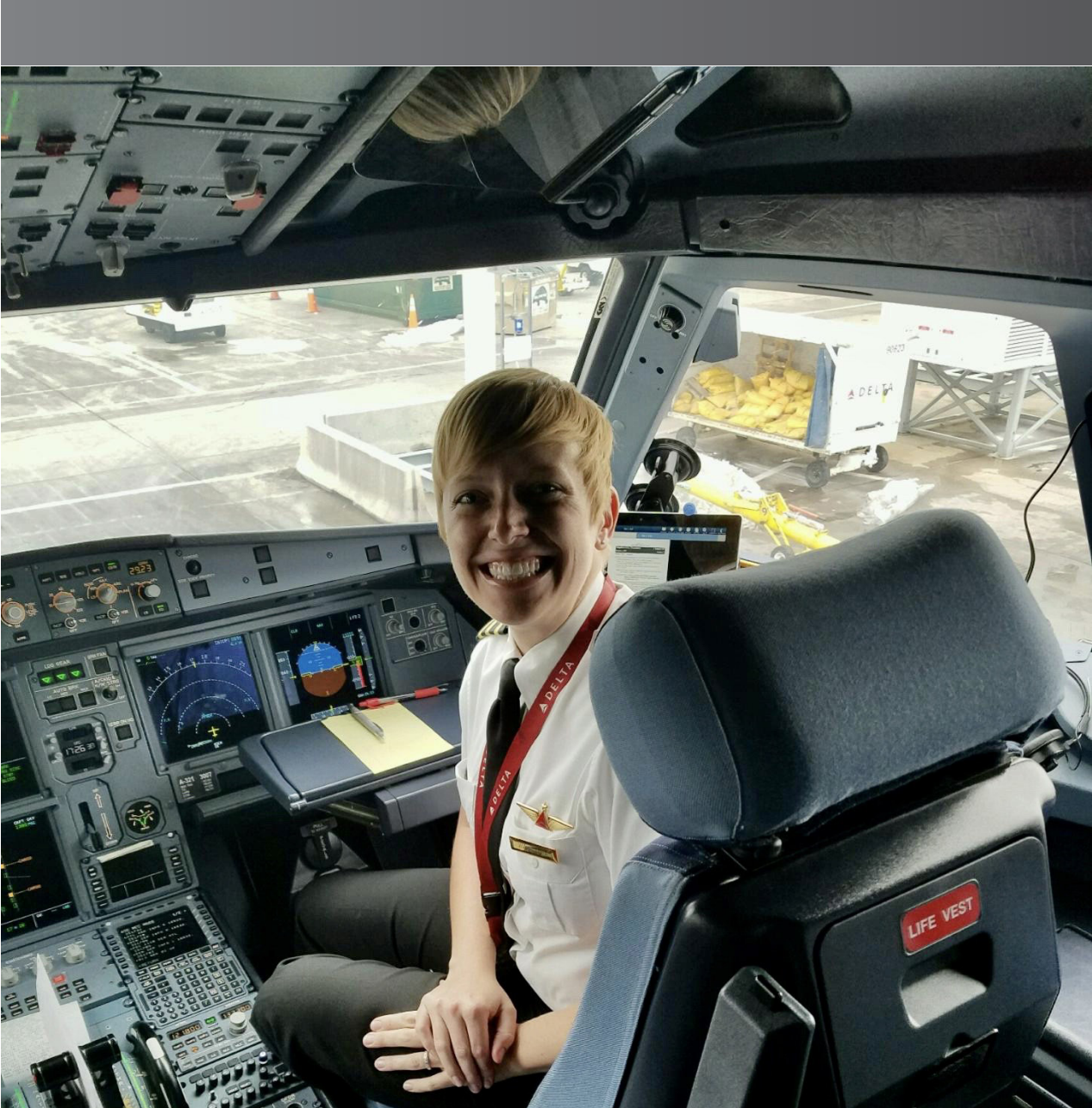
3. How were you first exposed to careers in aero-

space?

I grew up in a very small town in Montana and my exposure was quite limited. When I had the chance to go on my first ever flight in a passenger jet, I was probably in the 8th grade. At that time, I thought that flying was the coolest thing ever and wished that I could fly every day and all day. But I had no understanding of how to actually become a pilot. I consider it great luck that in this tiny town that I lived in, it happened that my neighbor owned a small Cessna airplane. His name was Bob Sneberger, and I credit my entire airline pilot career to him! Once he found out that I was interested in aviation, he really took me under his own wing and helped me envision a real future in aviation. After learning from Bob that I could become an actual pilot, I was determined to make it happen.

4. Did you have to overcome any particular challenges or obstacles to become successful in your career? If so, what were they, and how did you overcome those challenges?

There is not much diversity in the industry and



“People will tell you that you can’t do this and you can’t achieve this. Don’t listen to them. You will find a way to make it happen. And use their words and fuel for your fire.”

it can be a challenge to find other people that you can relate to and share common experiences with. As someone who identifies as a queer female, I just did not and have not seen many other pilots who looked like me throughout most of my time in the industry. Even more difficult than that is not seeing any leaders at my union or my company who look like me. There are days where it feels as though my concerns do not matter to the whole group. Luckily there are so many great organizations available now to help

all minority groups band together within the industry. Organization of Black Aerospace Professionals, Sisters of the Skies, Women in Aviation, Latina Pilots Association, Professional Asian Pilots Association, National Gay Pilots Association, and many more. All of these organizations have the goal of bringing people together, particularly marginalized groups.

5. What do you love most about your job?

I don’t know that I could pick one thing that I love most about my job. I absolutely love flying and getting to feel the aircraft in my hands and in my control. I love how technical the job is every single day. I really love the travel involved and getting to see so many new places. I love seeing the earth from 40,000 feet, in the morning, day time, at night, in the rain, sunshine, or snow.

6. If you could go back and give career advice to your 13-year-old self, what would you say to her?

Many people will tell you that you can’t do this and you can’t achieve this. Don’t listen to them. You will find a way to make it happen. And use their words and fuel for your fire. Keep asking questions and reaching out to people who can help you learn and grow. And while keeping your eye on the end goal, keep an open and flexible mindset about how you reach that end goal.

7. What’s the most interesting/fun thing you’ve ever done at work?

The most interesting thing I’ve done at work is fly over the North Atlantic Ocean during the night when the northern lights were dancing across the sky.

8. What type of education or training did you pursue in order to be successful in your career field?

I pursued a four-year bachelor’s degree in Aeronautical Science. I knew that a Bachelor’s Degree was a hiring requirement for many different airlines and I also knew I would benefit from the specialized courses within the Aeronautical Science department. As it turns out, I enjoyed my time in college because I was getting the most well-rounded

education in aviation and I was also having fun in my classes because they were aviation oriented.

9. Why do you think there are so few women in aerospace jobs? What can be done to increase the number of women (specifically minority women) in your career field?

Women in Aviation has recently completed a study to find out what factors negatively influenced a girl's or woman's decision to get into aviation. The top three barriers are: 1) the cost of aviation training 2) perceived existence of a good ol boy network and 3) perceived family life impact. All three of these are areas that recruitment efforts should focus on. And we need to understand that this career was design by and designed for straight, white men. In order to make this industry more welcoming for people who do not identify as straight, white, or male, it is going to require real change to the structures and systems that have existed since the beginning. Thankfully, these conversations about tangible change are happening now and a focus on inclusion is occurring within the industry!

10. Who helped motivate you or guide you as you progressed in your career?

My grandmother was one of the main motivators throughout my life. She got married while she was still in high school and started having children right away. She never had the opportunity to have a career of her own. Because of this, she instilled in me an understanding that I should not sacrifice my dreams for the societal pressure of getting married and having a family. She knew that I had big dreams but also knew that the culture within the US could influence me to give that dream up. She pressed me to keep pursuing.

As I mentioned before, my neighbor Bob Sneberger was a huge influence on my career. Without him, I almost certainly would have never

—X—
"I love seeing the earth from 40,000 feet, in the morning, day time, at night, in the rain, sunshine, or snow."
—X—

learned that I could actually become a pilot. Once I got into college, I met a man named Bill Hegenbarth who started mentoring me about becoming an airline pilot specifically. Without him, I might have given up during the recession of 2008. But he continued to motivate me and guide me throughout all of the ups and downs of the industry. He was and still is to this day one of my greatest supporters and advisors. I go to him for any question that I have.

I would like to say to all of the young girls that there are so many people out there who want to help you and who want to see you succeed. Receiving guidance from other people within your chosen career is extremely helpful. If you feel that you connect well with someone that you mean who is in your desired industry, don't be afraid to ask them if you can talk to them on the phone every now and then or write them via email. They would more than likely be happy to help you!

Aerospace Diversity, Equity, and Inclusion
A Woman on a Mission



Meet Khady Gaye acting Manager HR Corporate for United Airlines. Born and raised in Ghent, Belgium, of Sengalese decesnt she has spent her career in human resource management.

1. Tell us about a typical day at work.

A typical day at work is start very early in the morning around 7:30am reviewing emails. Then I usually have meetings with leaders, or my manager, or peers. Then I work on different contracts, potentially having calls. And giving online training courses. This is how my days look like sine we are all working remotely now.

2. Why did you choose this career?

I choose to work in the HR field, because initially I have a master in translation; and my first job was translating technical manuals all day. I am the type of person that needs social contact, so I decided that I would change and do

something different, that’s how I landed in the HR space. I wanted to be able to support people and I followed training course to get a masters in Human Resource management. That’s how I discovered the HR world.

3. What do you love most about your job?

Every day is new.

4. What type of education or training did you pursue in order to be successful in your career field?

When you are dealing with people you have challenges because everyone is different. Until you get to know the person, you may enter into a situation where you are in conflict with, or the collaboration isn’t going as smooth as you would like. So dealing with people are a challenge in with itself. That’s what I like, and that’s why I’m in this career path now. Another challenge is showing that whatever I do and whatever is say , that I never take anything personally, and try to be as bias free as possible.

5. Why do you think there are so few women in aerospace jobs? What can be done to increase the number of women (specifically minority women) in your career field?

Representation matters! You can’t be what you can’t see.

6. If you could go back and give career advice to your 13-year-old self, what would you say to her?

I would tell my 13 year old self, to never give up, and to make sure to speak up with your expectations and what you want to achieve.

7. What’s the most interesting/fun thing you’ve ever done at work?

The most fun thing I ever done, was last year. Where I was involved in diversity and inclusion and it was a special event for our employees, where everyone was dancing. From the crew to the CEO, which was a fun way to involve everyone at least for a little while! Work is important but when you intertwine it with fun then its a lot better!

8. Who helped motivate you or guide you as you progressed in your career?



You don’t need someone to motivate you, you have to motivate yourself! But having mentors are very important! Having a formal or informal mentor is important, being able to get advice from someone close to you in a professional way is important!

9. How were you first exposed to careers in aerospace?

At that time my first experience in HR was actually a recruitment campaign from the newspaper. In the job description they were looking for motivated people, not people with experience. That’s what really attracted me to the job that they were willing to work with us to get the experience. I learned from scratch. I started in a recruitment agency where I started recruiting temporary staff into different companies and that where I really started to learn. Learned how to cope with different personalities and understand the clients you are working with to help resolve their problems.

10. Did you have to overcome any particular challenges or obstacles to become successful in your career? If so, what were they, and how did you overcome those challenges?

When you are dealing with people you have challenges because everyone is different. Until you get to know the person, you may enter into a situation where you are in conflict with, or the collaboration isn’t going as smooth as you would like. So dealing with people are a challenge in with itself. That’s what I like, and that’s why I’m in this career path now. Another challenge is showing that whatever I do and whatever is say , that I never take anything personally, and try to be as bias free as possible.

11. As a child, what did you want to be/do when you grew up? If it wasn’t your current career, what made you choose what you’re doing now?

As a child I wanted to be either a journalist or a lawyer. At the end of the day while im not a journalist, and not a layer I think I am a journalist and lawyer in my world; because I have to communicate information about the company to employees, and I have to coach managers on new policies and procedures. In terms of lawyer I think I wanted to be a lawyer because I like fairness and again my role as HR I see the fairness in ensuring that we are providing the right work to the employees. As well as that when we have to make recommendations to our organizations I always look at how is this decision going to affect the employees and the company; I always try to find the middle ground.

Did You Know?

There are 48,308 pilots in the United States military, 3,314 are women but only 72 are black women.

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Soaring Above and Beyond with a Boost from the Past



Author: Balena Shorter, Editor: Candice Higgins

Throughout history, the notion of flight has held great appeal and wonder. The skies hold both fascination and mysticism. Aviation, which encompasses multiple principles and disciplines of flight, can be expressed as the full utilization of copious scientific thought and endeavors that grants us the audacious ability to defy gravity, abandon earthly bonds, and achieve lift into the heavens. There is something mystical about flying. The desire for it enabled early earthly inhabitants such as the dinosaurs to leap from land dwelling to develop wings and glide on the winds. Even the mythical story of the Phoenix lends itself to the unrelenting desire to rise and soar again and again. The quest for flight in all its myriad forms is a fascinating story with unknown and sometimes intentionally hidden chapters finally being revealed. These illusive, yet indelible historical tidbits of African American aviation and aerospace history are being mined slowly, but surely; and we are all the richer for them. The fascination with flight is a shared human characteristic. It belongs to us all regardless of race, origin or creed.

It is imperative to foster intellectual curiosity in students about STEM topics, but it is also important to foster a sense of belonging in all STEM spaces. Belonging is the eventual destination or outcome of representation. Representation indeed matters. There is no doubt about the positive impact on a young girl when she sees a woman who is a pilot, engineer or astronaut that looks like her. It makes the theoretical tangible and achievable. As those in aviation and aerospace increase representation, it is also very important to build a consistent reverence for those who have come and gone before us. These precious bits of historical narratives that are being unearthed one story at a time are critically important. More connections between the present and the past can build stronger networks with a fibrous sinew that will propel and support underrepresented populations to a higher level of achievement and sustainability in the field. That stronger network in turn fosters greater representation. Greater representation in turn leads to greater belonging. Honoring and acknowledging those who overcame obstacles

that were indeed daunting is a powerful thing. As professionals in aviation and aerospace, we owe it to ourselves to encourage young girls and boys to seek those hidden figures that paved the way for us. There are so many trailblazers whose stories deserve to be heard by today's generation.

One name in aviation history that everyone should know is Bessie Coleman, aka, "Queen Bess". She was the first black and Native-American woman to hold a pilot's license as well as an international pilot's license. She was born in Atlanta, Texas in 1892. She attended Langston University, but was not able to graduate due to finances. Instead, she journeyed to Chicago where she spent time with her brothers working in a barbershop. While Bessie was there, she heard former WWI pilots talking about their adventures experienced during the war. This was her

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introduction to the wonders and appeal of flight that catapulted her into what would be a thrilling and dramatic career, albeit short-lived.

Bessie had always been a good student who was particularly strong in math, which helped her in her journey. In getting her pilot’s license, she had to find a pilot who was willing to be seen teaching a black woman how to fly. Most pilots at this time were white men. Racism and sexism were obstacles in her journey she had to overcome in order to achieve her goal. Bessie traveled to France where she was able to obtain her license in 1921. She was the first black person to obtain her license from the most highly acclaimed flight school there. Bessie mastered advanced aviation maneuvers such as the famous “loop-the-loop.” This was her signature move that defined her career.

When Bessie returned to the United States, she struggled to find work as a commercial pilot despite her credentials. She journeyed back to Europe to focus on learning how to be a stunt flier. Upon her return to the United States, she found success in stunt flying and became known as “Queen Bess.” She used her fame in order to affect social change. Bessie would not fly if African Americans were not allowed at the airshow. She was adamant about representation, particularly when it came to women. It was extremely important to Bessie to show that women could fly as well. Her desire was to open her own aviation school in Texas that would be a conduit for increasing representation by teaching black men and women how to fly. Bessie would tell blacks that, “The air is the only place free from prejudices.” Another famous quote from her was: “I knew we had

no aviators, neither men nor women, and I knew the race needed to be represented along this most important line. So, I thought it my duty to risk my life to learn aviation and to encourage flying among men and women of our race who are so far behind the white race in this modern study.”

Bessie, “Queen Bess,” continued her form of entertainment and social action until her untimely death in 1926, at age 34. Bessie was not able to rent a decent plane because renters locked her out. She was forced to fly an old, dilapidated and unstable plane, that she tragically fell from during a practice flight in Jacksonville, Florida. A loose wrench in the engine was found at the site where the plane eventually crashed along with the pilot William Wills. There is no doubt that Bessie was a trailblazer whose story should be told. She believed strongly in representation and was committed to building a network that could lead to belonging.

Bessie, “Queen Bess” inspired me. I first learned of her story in 8th grade. Her death seemed tragic and senseless. She was such a brave and accomplished woman, but in the end, her fate was dependent upon the reliability of her equipment and safety protocols.

I have never forgotten the story of brave “Queen Bess.” Even today, while I carry out my engineering tasks, the notion of safety is always first and foremost in my mind. Aviation Engineering is a rigorous field because the stakes are high. I like to say that engineering is the science of building a better mousetrap. Safety and reliability are key areas of engineering design. Engineering design can appear on the surface to be about creating a sleeker version of a previous design, but the science underneath is disciplined, multifunctional, and consistent.

Perhaps, I am biased, but there is something incredibly exciting and intriguing about aviation

engineering. When I graduated from college with my engineering degree, I was thrilled to start my career at Boeing in Wichita, KS. I still remember my first day on the job. My briefcase was brand new with that leathery smell and feel. It was well equipped with mechanical pencils, my HP-48G reverse polish notation calculator, plenty of engineering paper, a notebook and my slide rule for good luck. The latter was given to me by my engineering mentor. I was ready! I went through all the perfunctory

introductions with my new team members, listened to a brief spiel about what the job entailed, reviewed a few drawings and then it was time for the tour of the factory where the magic took place.

When I walked through the doors and stepped out onto the factory floor for the first time, my heart started pounding in my chest at the sight. Hulking fuselages loomed tall and proud. The structural frames of narrow bodies were lined up from one end of the huge factory to the other. Some were partially covered with skins of 2024 Aluminum and some revealed majestic skeletal frames. Just the sheer magnitude of the factory and those planes were enough to illicit an audible gasp. I recall feeling absolutely awestruck. I was in the place where every single Boeing narrow and some wide body airplanes had their initial start. It was a special place that man’s creativity and ingenuity had wrought.

Being a bookish young woman from ‘podunk’ Edgewater, Alabama, I had reached a milestone, and I felt the heft of it all in that moment. I knew that I had to work hard as I was officially the first black woman to work as a Structural Stress Engineer at that particular plant. If I did not succeed, I was sure that opportunities for others who looked like me would be limited.

The pressure was on. My Lead Engineer asked if I was ready to climb up into my first official aircraft fuselage to check out the section of the airplane that I would have responsibility for. He looked down at my shiny new shoes with a question in his eyes, but I did not hesitate. Wild horses could not have stopped me at that moment. I put on my safety goggles and strolled right out on the shop floor with my notebook in tow. I carefully climbed into my first fuselage with my shiny shoes and entered a completely new world of stringers, rivets, Hi-loks, ribs, shear ties, shear webs, frames, and the empennage.

I learned a new language and gained a new vision. It is the language of load path. It is the key to structural stability and safety. By the end of my tenure at Boeing, I had developed the ability to follow the load. As air follows the path of least resistance, load however, follows the stiffest path.

Before I left Boeing to tackle the intricacies of the aircraft Engine at General Electric, two other young black stress engineers were hired at that plant. I consider my tenure as important representation. My engineering story is a simple one that started with a desire to improve reliability and increase safety. Safety and reliability may have possibly given “Queen Bess” more time to share her greatness with the world.

Networks are supportive, and representation helps to build them. They’re invaluable. Unfortunately, out of the 24% percent of women in science, only 2% are black. It is very difficult to create a sense of belonging when representation is still very low. Organizations such as OBAP and Delta Academy play vital roles in increasing representation.

Bessie knew the importance of representation. Her story is just one of many stories about trailblazers in aviation. There are many stories of Hidden Figures in aviation and aerospace like

Katherine Johnson, Mary Jackson, Dorothy Vaughn, and Christine Darden. Annie Easley, who was a pioneering computer scientist at NASA, is worth noting and researching. Make the effort to find out who was Marion Lee Johnson , Kathryn Peddrew, Sue Wilder, Eunice Smith, Patricia Cowings and Barbara Holley. The list is much larger than many may have thought prior to the release of the movie Hidden Figures. Discover your path by learning about theirs.

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Fun Fact

Janet Bragg was the first to earn a commercial pilot’s license. In 1933, Bragg enrolled in the Curtiss Wright Aeronautical School. The school could not afford an actual plane for flight training, so Bragg saved money and bought a plane which she rented out to other aviators. During World War II, Bragg attempted to join the Women Airforce Service Pilots (WASPs) but was turned down because she was African American.

Lahou Keita

Co-Founder and Chief Operating Officer of Keitas Systems

Lahou Keita is a French Aircraft Inspector specialized in Maintenance Engineering and is the Chief Operator Officer (COO) and co-founded of Keitas Systems. Keitas Systems was funded in 2011 with headquarters in Nantes, France, and since 2019, with a subsidiary in Quebec City, Canada. The company offers aerospace expertise, consulting, and cutting-edge software: Maintenance Hub CanadaTM and TempeusTM Maintenance Portal. .

1. Tell us about a typical day at work.

A typical day is that when I arrive at work, I check all the regulations to see if they work for the type of aircrafts that our customers want. If yes, then I sent an immediate alert so that they can comply with the actions required and the report to me a maintenance plus form that they use. If I see an issue with what our customers want versus what is in our manual, then it is my job to try and fix it or recommend another aircraft. After that I continue going through my daily checklist and carry out those actions daily to manage our company.

2. Why did you choose this career?

When I was nine years old my dad used to live very far. I had to take an aircraft to go and see him during holidays. The landing and taking off of the aircraft made me happy because I knew no matter what my dad would be there waiting for me. So, from a young age I associated airplanes, and aircrafts as I am going to see my dad, which was always a happy feeling for me.

3. How were you first exposed to careers in aerospace?

Because of me going to see my father about twice a year that is how I was truly exposed to aircrafts, and careers in aerospace. Also, certain cartoons in France that I watched exposed me to aerospace.

4. Did you have to overcome any particular challenges or obstacles to become successful in your career? If so, what were they, and how did you overcome those challenges?

Being a black woman is a challenge in itself. But when I use to see the captain when an aircraft made an arrival, usually the flight attendants use to think I was coming to clean the aircraft. When you are a black woman, they don’t expect you to be in a technical job, which I was. So, when you are a maintenance planning engineer, and you have to take care of an aircraft and manage all the technicians because you are the one in charge, its quiet tough because they wont to listen to you. But I use to have to be very strict in order for them to comply with my requirements.

5. What do you love most about your job?

I love freedom. When you are your own boss, it is a quality of life. You take your own decisions with a partner and know where you want to go, how you manage your company and it became a passion. My passion is my job, I always wanted to work in aerospace, so being able to pick your day and make your day on your time is a great thing!

6. If you could go back and give career advice to your 13-year-old self, what would you say to her?

I would tell her to keep going! Dream high, and do not limit yourself.

7. What’s the most interesting/fun thing you’ve ever done at work?

Flight control test without passengers.



“I love freedom. When you are your own boss, it is a quality of life. You take your own decisions with a partner and know where you want to go, how you manage your company and it became a passion.”

8. What type of education or training did you pursue in order to be successful in your career field?

I did a competition for the French National Civil Aviation school, and I didn't get in and I speak multiple language like Finnish. But one of the French manufactures saw potential in me and hired me. I train every two years or so, training classes to keep up with the different aircrafts and in general.

9. Why do you think there are so few women in aerospace jobs? What can be done to increase the number of women (specifically minority women) in your career field?

There was no representation. Representation matters!

10. As a child, what did you want to be/do when you grew up? If it wasn't your current career, what made you choose what you're doing now?

When I was a child I wanted to be a pilot, and then when I entered in the field I realize that wasn't my passion. When I went to the technical side, I saw that I like the technical aspect of aircrafts and maintenance and that is what I really enjoyed.

11. Who helped motivate you or guide you as you progressed in your career?

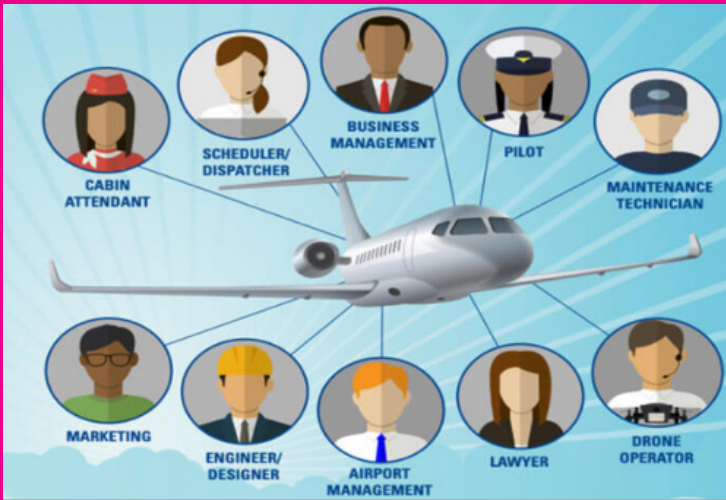
My parents. Dad said you have to be precise, check everything and keep going further. My mom said you have to fight, keep showing that you fight.

Careers That Take Flight



STEPH MCCLLOUD
FOUNDER OF TAKE FLIGHT GIRLS INC
WWW.TAKEFLIGHTGIRLS.ORG

“WE ARE A NATIONALLY TRADEMARKED NONPROFIT ON A MISSION TO EMPOWER AND EXPOSE GIRLS TO AVIATION, TRAVEL, AND ENTREPRENEURSHIP”



Careers In Aviation

Usually when you think of Aviation jobs you only hear about Pilots and Flight Attendants but the industry of aviation consist of so much more! There are over hundreds of careers that fall under aviation and aerospace some specialties being very unique. For Example, did you know that there are people that are program developers that create and maintain the simulators that pilots used to practice flying. There are even jobs that have specialties in aviation. Like Flight Nurses, who provide medical care to patients in helicopters and planes until they get to a medical facility. Aviation Attorneys who work in the public and private sector that practices aviation law.

Highlight Career Path
“Aircraft Painter”

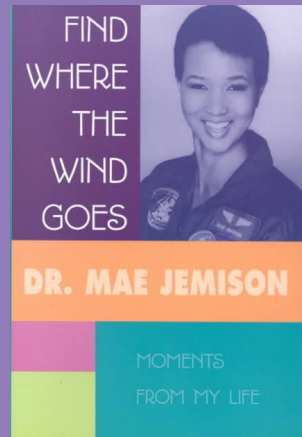
Air Craft Painters are the creators behind the beautiful painting on planes. They are responsible for prepping and applying primers and paint for the purpose of beautifying airplanes and other aircraft. Their Salary ranges from \$37K - \$73k. Some amazing examples of their work includes; Drake's OVO 767 Pumas N444-SC, Jay-Z & Beyoncé', Alaska Airlines Disney's, Seattle Seahawks, Nike', Delta Air Lines Thank You and Breast Cancer Awareness, United Air Lines Star Wars, and Air Canada's Toronto Raptors Air Crafts. To explore this career path more click on the link as CNN went behind the scenes.
<https://www.google.com/amp/s/www.cnn.com/travel/amp/how-to-paint-an-airplane/index.html>





Book Club

1



Find Where the Wind Goes

by Dr. Mae Jemison

From majoring in chemical engineering at Stanford University (at the age of 16) to giggling with hairdressers in Nairobi (in Swahili) to orbiting the Earth as the first woman of color to travel in space (conducting experiments in life and material sciences and bone cell research as the mission's science specialist), Mae Jemison has never been one to sit and watch life pass her by. From childhood, Jemison knew she would be an astronaut—the fact that space travelers tended to be white men only meant one more obstacle she would gladly face. Her autobiography, sassy, confident, and witty, is full of anecdotes designed to empower young readers --Emilie Coulter

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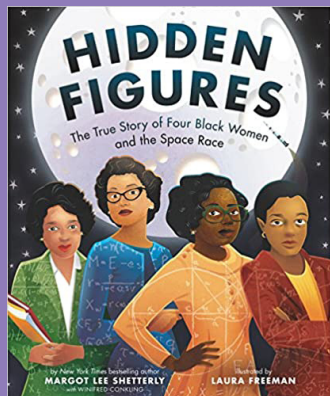


Flying Free How Bessie Coleman's Dreams Took Flight

by Karyn Parsons

Before Bessie Coleman blazed a high trail with her plane. Before she performed in death-defying flying shows that would earn her fame as "Queen Bess". Before she traveled the country speaking out against discrimination, Bessie was a little girl with a big imagination that took her to the sky, through the clouds, and past the birds. Knocking down barriers one by one, Bessie endured racism and grueling training to become the first black female pilot and an inspiration to Mae Jemison, Josephine Baker, and many more.

3

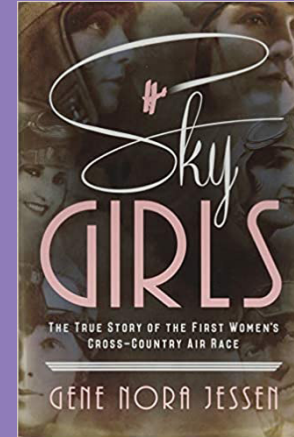


Hidden Figures: The True Story of Four Black Women and the Space Race

by Martha Ackmann

Based on the New York Times bestselling book and the Academy Award-nominated movie, author Margot Lee Shetterly and Coretta Scott King Illustrator Honor Award winner Laura Freeman bring the incredibly inspiring true story of four black women who helped NASA launch men into space to picture book readers!

4

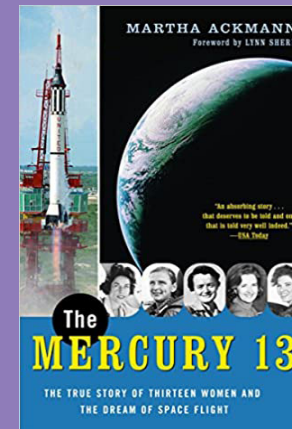


Sky Girls

by Gene Nora Jessen

The exhilarating true story of the unsung pioneers who blazed a pathway towards a new era of female aviation! The year is 1929, and on the eve of America's Great Depression, nineteen gutsy and passionate pilots soared above the glass ceiling in the very first female cross-country air race.

5

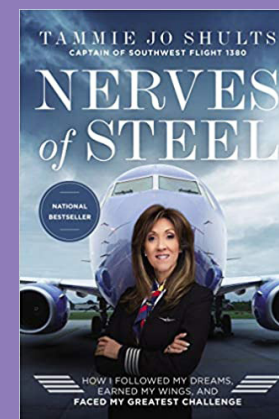


The Mercury 13: The Untold Story of 13 American Women and The Dream of Space Flights

by Martha Ackmann

In 1961, just as NASA launched its first man into space, a group of women underwent secret testing in the hopes of becoming America's first female astronauts. A provocative tribute to these extraordinary women, The Mercury 13 is an unforgettable story of determination, resilience, and inextinguishable hope.

6



Nerves of Steel

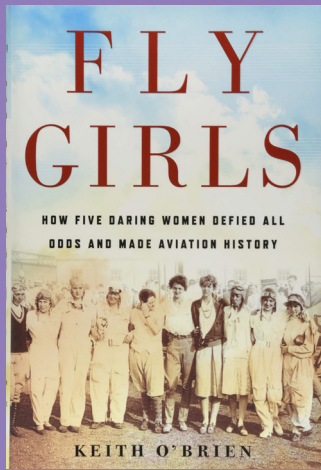
by Tammie Jo Shultz

Nerves of Steel is the captivating true story of Tammie Jo Shultz's remarkable life—from growing up the daughter of a humble rancher, to breaking through gender barriers as one of the Navy's first female F/A-18 Hornet pilots, to safely landing the severely crippled Southwest Airlines Flight 1380 and helping save the lives of 148 people.



Book Club

7

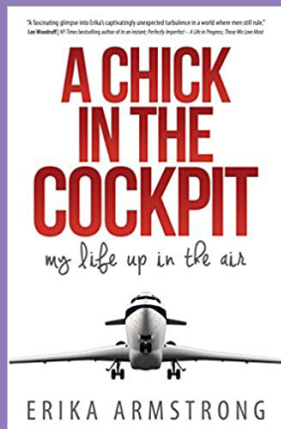


Fly Girls

by Keith O'Brian

Ken O'Brien recounts the struggles of a group of courageous women who were among the first of their gender to earn a pilot's license and compete as equals with men in a profession that was then extremely dangerous. Not only were the women battling rickety single-prop planes with dubious instruments and open cockpits, in which pilots were often blinded by smoke, but also the contemptuous and dismissive attitude of men, who sometimes went to considerable lengths to undermine them.

8

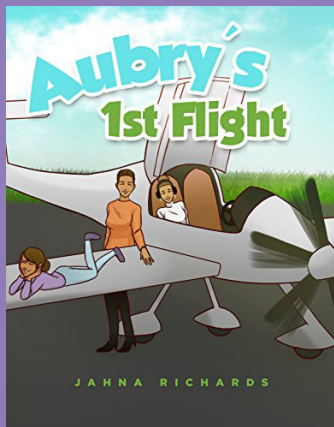


A Chick in the Cockpit

by Erika Armstrong

In the atmosphere of flying, Armstrong's memoir of life as a female pilot gives us a fascinating glimpse into a world where men still rule. Her success flying the 'heavy iron' for the airlines is a must read for any woman considering a career in aviation or facing the challenges of balancing work and home.

9



Aubry's First Flight

by Jahna Richards

Six-year old Denam allows you to peek over her shoulder today for an intriguing journey to a private airport that house many different types of aircraft. Accompanied by her mother, she finds herself walking alongside huge airplanes, inside large buildings with tall ceilings and outside near runways. What she begins to understand is that today she's there to experience this life-changing event for her 16 year old big sister Aubry; who has learned how to fly planes and will be flying for the first time alone. This book to inspire you to dream BIG because Aubry is proof that it works.

10

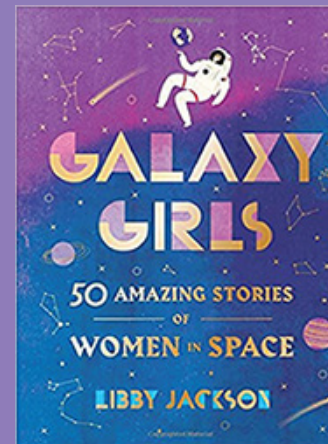


Final Flight Final Flight

by Erin Miller

Final Flight Final Fight is a riveting story of the family of a WWII Veteran fighting to honor her final request. A request that should have been easy to fulfill but was met with unnecessary roadblocks. Roadblocks similar to which Elaine and the Women Airforce Service Pilots (WASP) were met with during and after WWII.

11



Galaxy Girls: 50 Amazing Stories of Women in Space

by Libby Jackson

Filled with beautiful full-color illustrations, a groundbreaking compendium honoring the amazing true stories of fifty inspirational women who helped fuel some of the greatest achievements in space exploration from the nineteenth century to today—including Hidden Figure's Mary Jackson and Katherine Johnson as well as former NASA Chief Astronaut Peggy Whitson, the record-holding American biochemistry researcher who has spent the most cumulative time in space.

12



You Look Like Me "The Flying Princess Edition"

by Aaliyyah Abdur-Rahman & Laura Humphries

Known as the Flying Princess, Laura Humphreys was inspired to make a career change from flying as a flight attendant to moving to the cockpit. Author of the book "You Look Like Me," Laura is determined to bring more diversity and representation into the cockpit.

Rosalind Cobbs

Aviation Ambassador and Pilot Mom

1. Tell us about a typical day at work.

Within my business, I have days where I am researching aviation industry news, I am on conference calls, providing information that is useful for students/parents to pursue aviation industry careers. I also routinely share what my business entails with parties I meet in the course of a day. I seek opportunities to develop my business to be profitable.

2. Why did you choose this career?

I was inspired by God through a series of events tied to my son Joseph's achievements as he earned his pilot's license at age 17 as a high school junior student. My aviation career path was not one that I intentionally chose!

3. How were you first exposed to careers in aerospace?

I came to work at The Boeing Company in November 2006 and retired in December 2016 as an Office Administrator. In that role I supported Boeing's Corporate Communications, Public & /Media Relations, Finance Communications and Communications Director of Operations teams in Chicago, IL.

4. Did you have to overcome any particular challenges or obstacles to become successful in your career? If so, what were they, and how did you overcome those challenges?

I had to overcome fear and the vastness of what I was purposed and really tapped on the shoulder by God to do. I had to take the biggest step of faith that I can recall in my life to believe that I should start my business. I did this by praying, trusting God, speaking to those parties (friends, pastors/ministry leaders, industry colleagues), and studying the industry. I had to have strong belief and the willingness to take the plunge into a career path I never imagined or considered. I had to thoroughly believe in my assignment.

5. What do you love most about your job?

I love that I have a defined purpose to guide students into paths leading to aerospace-aviation industry careers through my journey and experiences with my son. My business will allow me to change lives in my sphere of influence and to share life lessons that will help others to be successful and to avoid mistakes/pitfalls along the way. I love sharing my story and my son's achievements.

6. If you could go back and give



"I had to overcome fear and the vastness of what I was purposed and really tapped on the shoulder by God to do."

career advice to your 13-year-old self, what would you say to her?

I would say to fight against and deal with head on all of my fears/inhibitions about my self-worth and to reach out to those mentors/coaches who could guide me. I would say to gain way more self-confidence and to hold onto that confidence. I would say to stay focused not matter what it looks like.

7. What's the most interesting/

fun thing you've ever done at work?

I was thrilled to present and to convince my local high school's administration (Assistant Superintendent/principal) to explore aviation careers and this led to my being embraced by math and science and CTE (Career and Technical Education) faculty after I began raising awareness about aviation careers starting in October 2015. In August 2018 I did a presentation and it was decided

that an afterschool aviation program would be implemented at my high school! I was part of the planning of a first ever Aviation Day for students which was cancelled due to online education format because of the Coronavirus pandemic one week before our Evanston Township High School (ETHS) Aviation Day launch.

Before launching my business, the most exciting thing I have done related to aviation pursuits is that I flew with my son sitting in the back seat of a Cessna 172 aircraft in Racine, WI a year before (August 2014) he earned his private pilot's license on Wednesday, August 5, 2015 through an aviation STEM program entitled "Young Aviators".

8. What type of education or training did you pursue in order to be successful in your career field?

I enrolled in a community business academy in my city, to shape and form my business ideas and to define my business' mission, vision and purpose. I enrolled in business seminars/workshops. I met with mentors/coaches/nonprofit staff in the STEM fields and in the aerospace-aviation industry. I also maintained my aviation industry contacts such as those with Boeing, the Tuskegee Airmen Chicago Chapter, OBAP, Aircraft Owners and Pilots Association (AOPA), Tuskegee Next, AeroStar Aviation Institute, etc.

9. Why do you think there are so few women in aerospace jobs? What can be done to increase the number of women (specifically

minority women) in your career field?

It is really about exposing students at an early age and also educating their parents about industry careers. I find that there are minorities who never thought about aerospace careers. The industry is white male dominated, however with the demand for pilots and other careers that support flight operations, it is a great time to explore aviation. Minority students need to be encouraged to take STEM courses. It is educating these people groups as well. It would be helpful to see more Black female professionals in aviation careers.

The demographics are changing in the U.S., so that will dictate and drive the need for diversity in the aerospace-aviation industry for people of color, women, minorities to have a chance at career opportunities in STEM Aviation roles. Also there is a huge amount of retirements coming in the next 15 years, despite our current global pandemic. This process has already begun. That talent base will go away due to mandatory retirements and will open the door wide for a new, fresh talent pipeline which needs to be developed right now, beginning in elementary school. Companies such as Boeing, Lockheed Martin, Northrop Grumman, as well as the major and regional airlines are seeking highly skilled, trained, educated and diverse talent.

Engineers, air traffic controllers, UAV/drone and test pilots, medical doctors, chemists, scientists and artists are some of the careers that will need staffing.

“There is a huge amount of retirements coming in the next 15 years, despite our current global pandemic. This process has already begun. That talent base will go away due to mandatory retirements and will open the door wide for a new, fresh talent pipeline which needs to be developed right now, beginning in elementary school.”.

You can have a career as I did at an aerospace company and apply your college education to roles in legal, finance, marketing/PR and communications, advertising, flight operations, procurement, foodservice/catering operations, executive/administrative support, Human Resources and the list goes on.

10. As a child, what did you want to be/do when you grew up? If it wasn't your current career, what made you choose what you're doing now?

I wanted to be a writer since I was four years old. I love to fix words through editing. I later wanted to be a sports journalist.

11. Who helped motivate you or guide you as you progressed in your career?

With my induction or immersion into the aviation industry after being employed at Boeing, it was my son Joseph who became hooked on flight at the age of 9 years old at a Boeing Family Day event in August 2007. That single event changed my life as a mother. That led to his achievements over time while overcoming obstacles and earning his pilot's license in high school and now pursuing a future career as a commercial airline pilot. It led me to discover that I had a passion to help other students to have the same opportunities that he was afforded.



Meet Ophelia Dames, United Airlines, General Manager Philadelphia International Airport, where she is responsible for 250 Ramp and Customer Service employees 4 Supervisors, and a full administrative support staff and a host of Business Partners.

Question: Why did you choose this career?

Answer: A typical day here at the airport is when I engage with customers, employees and union. Then we sometimes have divergence when we have bad weather, hurricanes, or high wind. That puts me out in the operation trying to support my employees, you have to make sure ramp equipment is sturdy and tied down so things don't get blown over, and you have to be prepared to handle everything. A typical day can be a calm day or total chaos. No two days are ever alike. Every day at an airport is a new adventure.

Question: Tell us about a typical day at work.

Answer: Every day is a new day! That's the beauty for me. Some people go to their nine to five job and that's what they do, they know everything that would happened between that time, when my day there is quite a difference. There is always that element of surprise, and things that you never encountered before that you have to deal with!

Question: What's the most interesting/fun thing you've ever done at work?

Answer: I have always wanted to be a pilot from a very young age. My dad use to work at the airport in Harrisburg Pennsylvania way before 9-11 when you could absolutely go to the airport and watch planes take off, and that's what really peaked my interest in being a pilot. I wanted to be an air force pilot, when I went to enroll, I failed the physical because I had lost my left eye when I was four years old. My next best thing was to go to college, I went to Howard University and studied education and communication. When I had



the chance to interview for an airline job, I got a spot in United and that's where I have been ever since for the past 31 years.

Question: How were you first exposed to careers in aerospace?

Answer: There are always doubters. Who don't believe that you can be successful in what your passion is. You have to do what you want not what your parents want. They want what's best for you but could not be what you want. Follow your dreams, not your parents wishes. There will always be obstacles which you would have to climb above, go under or go around. Sometimes you have to isolate to elevate, there are people in your career that will try to tare you down so what you would have to do is isolate them out of your life.

Question: What do you love most about your job?

Answer: The variety. We talk about diversity and diversity can me a plethora of things from religion to race, and my job is a diverse job. Its not just one thing I am engaged in, I am engaged in a variety of things. There is no two days ever alike. You never know what you are

going to encounter, there is such a diversity in the responsibilities that you encounter every day.

Question: If you could go back and give career advice to your 13-year-old self, what would you say to her?

Answer: I would say, What took you so long? What took you so long to identify what was really burning in your soul? Why did it take you so long? When you know that you know that there is something in the pit of your stomach that inspires you to make every day a purpose towards that passion.

Question: What's the most interesting/fun thing you've ever done at work?

Answer: Building people up is again my passion. There is so much negativity in the world and you never know what a person family life is like or their background and what they are going through on a day to day bases and the thing I found most thrilling about this job is encouraging people and building them up with confidence that they can achieve anything their mind sets.

Question: Why do you think there are so few women in aerospace jobs? What can be done to increase the number of women (specifically minority women) in your career field?

Answer: It is a male dominated industry, and the male was more respected in terms of their knowledge in this, but what we learned is that females are just as capable. We are more analytical thinkers and we can have that emotional intelligence to come with that. Even though it's a male dominated industry I do believe that women are on the rise, and representation matters. You cant be like you cant see. Programs like Girls Launch would help make young girls realize what they are capable of.

An Aviation Maintenance Unicorn Meet Cameo Cobbs



Cameo Cobbs is Supervisor of Engine Overhaul & Repair Shop for the V2500 group at United Airlines.

" You can do it! You can do anything that you want. Don't let ignorant people discourage you. You're intelligent, you're strong, and you're resilient."

1. Tell us about a typical day at work.

As a supervisor in the Jet Shop, it's my job to oversee the build and disassembly of Air Force engines. Everyday I have a briefing with supervisors and leads to get the latest status of the engines, then I brief my crew. Throughout the day I'll check on the work being done on the engines, correct any payroll issues, have meetings with upper management on workload and planning, and address any issues that might occur with paperwork or parts. My days are always different. Every day brings a different challenge. I had to learn to be innovative and creative to be successful in this position. I always have to know who to contact and how to prioritize the workload.

2. Why did you choose this career?

When I was a 12 years old I flew on an airplane for the first time. I feel in love with how that huge, heavy piece of metal was able to fly. I wanted to be a pilot and go everywhere the plane went. I wanted to always be in the sky. Unfortunately I wasn't able to afford to become a pilot. The training had to be paid out of pocket, and it was beyond my reach. While trying different ways to get pilot training, I went to a Women In Aviation event. They had a gentleman show us how a reciprocating engine worked. I saw how easy it was, so I decided that I would pursue aviation maintenance instead. That has been the best decision that I've made.

3. How were you first exposed to careers in aerospace?

When I was in high school there

was a program being held at the Burbank Airport for high school students who were interested in aerospace careers. Unfortunately my father didn't have the means to help me get to the airport to attend the program, but it piqued my interest.

4. Did you have to overcome any particular challenges or obstacles to become successful in your career? If so, what were they, and how did you overcome those challenges?

Although times have changed greatly, in the past I have been treated as if I was just a dumb female mechanic. I've had guys try to bully me and exert authority over me. As a mechanic here at United, management saw me for who I am, and not my gender or color. I worked hard and offered to take on extra assignments to

help the success of our program. They have utilized my skills and have helped me grow as a leader. Unfortunately, I still get resistance from older white males, but I handle them with strength. Every time I'm faced with that attitude I confront it. Inside they feel intimidated by something, and I show them that they have good reason to respect me, but not fear me. I won't bow to them or let them see weakness, but I will do my job to the best of my ability and work well with them. It involves a little give and take. They have to respect a good work ethic and fair attitude. After a while they make themselves look foolish if they don't. I've earned the respect of my colleagues.

5. What do you love most about your job?
- I love the daily challenges and working with people to solve problems and getting goals accomplished. I'm very project driven, and seeing the success after the hard work is an amazing feeling. I also enjoy taking care of my team and making sure they have a positive work environment.
6. If you could go back and give career advice to your 13-year-old self, what would

you say to her?

You can do it! You can do anything that you want. Don't let ignorant people discourage you. You're intelligent, you're strong, and you're resilient. Focus on what you enjoy and you will be happy. It may not be easy, but you will be better off for it and your dreams are attainable.

7. What's the most interesting/fun thing you've ever done at work?

Having the opportunity to use the B777 flight simulator. As a new mechanic at Delta Air Lines, we went on a tour of their Atlanta Tech Ops Center. They put in a bunch of different flight scenarios and we all got to fly. I had a blast. Since I was young I wanting to be a pilot, so it felt like home.

8. What type of education or training did you pursue in order to be successful in your career field?

I went to A&P school in Los

"I get told all the time that people have never seen a woman, especially a black woman mechanic. When I would work on the planes, people would be amazed."

Angeles, CA. I spent 17 months there and took the tests 2 months later to get my certificate. I have taken some college classes with Embry-Riddle Aeronautical University, but I didn't have enough financial aid to get my degree. I'm still working on that to further my career.

9. Why do you think there are so few women in aerospace jobs? What can be done to increase the number of women (specifically minority women) in your career field?

I really think that social programming is why we don't see a lot of women in aerospace jobs. We're made to feel as if it's a mans field, especially aviation maintenance. I've worked with just a few women mechanics, and they were all great at what they do. I feel we need to expose more women to aerospace, especially young women of color. Aviation maintenance feels like a white mans industry, but

the opportunities are out there for all of us now. The first African American mechanic here at SFO recently passed away. People like him opened opportunities for other minorities to take advantage of. This field was not a possibility for people like me 30 years ago. In order to catch-up we need affordable schools in minority areas and outreach teams to show young black women how aerospace works. The only reason that I gained interest is because I was privileged enough to fly on a plane, and then I was lucky enough to have taken that class, which exposed me to maintenance. I had no idea what opportunities were out there. This should not rely on privilege or luck.

10. As a child, what did you want to be/do when you grew up? If it wasn't your current career, what made you choose what you're doing now?

I wanted to be a pilot since 12 years old. I don't remember wanting to be anything else. Aviation maintenance is just a step away from that. I still get to be close to my first love.

11. Who helped motivate you or guide you as you progressed in your career?

Honestly, not many people. I had family and friends who were

proud of me, but I motivated myself. This was just a passion I had, people around me didn't understand that. I get told all the time that people have never seen a woman, especially a black woman mechanic. When I would work on the planes, people would be amazed. I believe I see more women pilots than mechanics. It's an untapped field for all those intelligent young black girls who are more than capable of entering and improving this field.



Fun Fact

In 1938, Willa Brown was the first Black woman to receive her pilot's license in the United States. She was also the first Black woman to serve as a Civil Air Patrol officer and the first to run for congress. She co-funded the Coffey School of Aeronautics and retired in 1971.

Jasmine Scott

Air Traffic Controller

Houston Hobby Air Traffic Control

Jasmine is has served as an Air Traffic Controller for over 12 years. She began her Air Traffic Controller Career in the United States Army serving four years prior to being hired by the Federal Aviation

1. Tell us about a typical day at work.

One of the main reason I love Air Traffic Control (ATC) is because every day as an ATC is different. Issuing routes/clearances, landing/departing aircraft, and coordinating with vehicles all day are a few things. In addition, assisting helicopters which include: the FBI, MEDEVAC, and police helicopter chases around Houston happen under our control daily. Our break schedules are phenomenal! With collaboration from our union (NATCA), ATC cannot work over 2 consecutive hours without a break.

2. Why did you choose this career?

I chose ATC because I felt like it was challenging and extremely interesting. I couldn't see myself doing the same thing at the same job for 20 years. Every shift is different and far from monotonous. As a result, each day feels like something new and something unexpected always happens.

3. How were you first exposed to careers in aerospace?

With my mother's consent, I joined and went active duty at age 17 with the US Army. The recruiter and I went through a dozen job options when I finally saw the ATC segment on this Army recruiting commercial. Until that moment I had no idea ATC was even a thing and I instantly loved it.

4. Did you have to overcome any particular challenges or obstacles to become successful in your career? If so, what were they, and how did



"Showing young women that these jobs are available, how to get them, and proving they are fairly easily attainable will increase those number "

you overcome those challenges?

Joining and leaving for the military at 17 was both extremely intimidating and unnerving. Basic training was psychologically daunting and physically taxing. Advanced Individual Training (AIT) was a four year college curriculum shortened into six months. To say the least, it was absolutely exhausting. Through this training I made the best friends and acquired the strongest bonds with people that will forever be my family. Dealing under pressure, expediting my reaction time, and acquiring excellent studying skills came from that training. I truly believe that I wouldn't have gained those friendships or skills through any other means

Deciding to go to college was difficult for me. I never liked school much and I was a single mother raisings kids. In my experience: college and raising children include a lot of sleepless nights, more than a few days of feeling like not a good mom, and learning patience you didn't think you had. Accomplishing my bachelor's degree in Science of Aeronautics was a personal accomplishment that

makes up for those days but never forget.

Finally getting picked up in the Federal Aviation Administration (FAA) I thought, "Smooth sailing from here." I was definitely wrong about that. The FAA doesn't let you choose a facility to go. Although it isn't the job description, moving state to state is pretty much a requirement. The hours and weekly schedules are complex and abnormal for most people. In my opinion, if you can suck it up for the first couple years until you transfer where you want the pay and benefits are phenomenal.

5. What do you love most about your job?

I give 100% every day at work. Without being misunderstood, I love the moments after something stressful and potentially life threatening happens. That moment when everything is calmed back down and we all go home safe and sound. That moment when I realize that could have went so horrible but I did excellent and passengers are none the wiser. I love that the most!

6. If you could go back and give career advice to your 13-year-old self, what would you say to her?

Education, education, education!!!

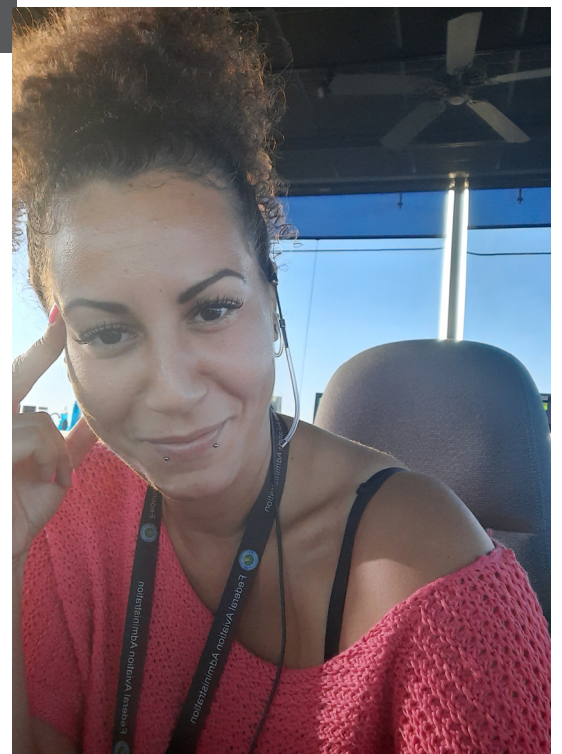
7. What's the most interesting/fun thing you've ever done at work?

Training AH-64 Apache attack helicopter pilots at night is both thrilling and entertaining!

8. What type of education or training did you pursue in order to be successful in your career field?

Joining the military was my "ace card." I received my training and certifications for free. Was able to pay for college with benefits from the army. Had valuable and accredited things to add to my resume.

9. Why do you think there are so few women in aerospace jobs? What can be done to increase the number of women (specifically minority women) in your career field?



I believe the hours and the moving around deter women from aerospace jobs. Having children with those demands alone make life very difficult. To increase the number of minority women I think organizations like this is a great start.

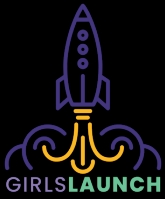
Most people let alone minority women don't even know these jobs exist. Showing young women that these jobs are available, how to get them, and proving they are fairly easily attainable will increase those numbers.

10. As a child, what did you want to be/do when you grew up? If it wasn't your current career, what made you choose what you're doing now?

I wanted to be a lawyer when I was younger. My mother was ill and dying and I wanted legal custody of my younger brother. I didn't have the means or the time for law school. What I could do was join the military and persuade a judge I was capable of being a guardian despite my young age. To be honest, aeronautics was a settlement within myself at the time. I quickly learned I was meant to do this and absolutely love it. So after I gain custody and was in a position to really choose, I chose aeronautics.

11. Who helped motivate you or guide you as you progressed in your career?

My biggest motivators have always been my family. I always wanted to give the younger generation in my family a role model to aspire to be and then do so much better than. In return, they have always loved and supported me on both my best and worse day.



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In this activity, you will: Desgin and create your own pape airplane, while learning of the four forces of flgiht.

Supplies Required: All Students
Multiple sheets of loose leaf paper
Access to Youtube.com

Video
How to make a paper plane, with science! <https://youtu.be/AGzOOM0Pz98>

Overview
A number of interesting factors affect the flight of a paper airplane, including wind resistance. Find out what factors affect the flight of a paper airplane.

Instructions

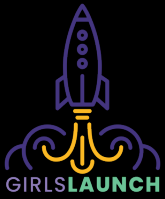
1. Go to the 'How to make a paper plane, with science!' video on you tube.
2. Start watching the video at 3:14.
3. Build your paper airplane like in the video or change it up a bit.
4. Which design characteristics made your airplanes fly the best?

Additional Resources

- 1 What factors affect the flight of a paper airplane? <https://youtu.be/QoTbgSSTB3E>



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In this activity, you will: Simulate the conditions needed to create fog in your kitchen.

Supplies Required: All Students
Glass Jar
Strainer
Water
Ice Cubes

Video
Fog in a jar instructions: <https://youtu.be/jU3oB2G6vvU>

Overview
Fog shows up when water vapor, or water in its gaseous form, condenses. During condensation, molecules of water vapor combine to make tiny liquid water droplets that hang in the air. You can see fog because of these tiny water droplets. Water vapor, a gas, is invisible Fog happens when it's very, very humid. There has to be a lot of water vapor in the air for fog to form. Make your own fog in a jar.

Instructions

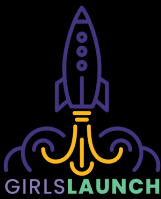
1. Fill up the jar completely with hot water for about a minute.
2. Pour out almost all the water, but leave about one inch in the jar.
3. Put the strainer over the top of the jar.
4. Place a few (3-4) ice cubes in the strainer.
5. Watch what happens!

Additional Resources

- 1 Weatherwizkids.com
- 2 Nationalgeographic.org



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In this activity, you will: Create rainbows in your home.

Supplies Required: All Students
Glass of water
Sheet of white paper
The sun

Video
Do it yourself homemade rainbow: <https://www.youtube.com/watch?v=NB1ryIEo7Vo>

Overview
Light is made up of a lot of colors. Specifically, the colors are red, orange, yellow, green, blue, indigo and violet. When light passes through the water, it is broken up into the colors seen in a rainbow. Let’s see this phenomenon in action.

Instructions

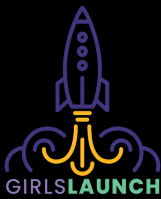
1. Fill the glass all the way to the top with water.
2. Put the glass of water on a table so that it is half on the table and half off of the table. Be careful that the
3. Then, make sure that the sun can shine through the glass of water.
4. After you do that, place the white sheet of paper on the floor.
5. Adjust the piece of white paper and the glass of water until a rainbow forms on the paper.

Additional Resources

- 1 Weatherwizkids.com
- 2 www.youtube.com/watch?v=dIdE-pqYqbs



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In this activity, you will: Make the sound of thunder in your home.

Supplies Required: All Students
Make the sound of thunder in your home.

Video
Popping inflated paper bags: <https://youtu.be/Y1vmlgAur5U>

Overview
Hitting the bag causes the air inside the bag to compress so quickly that the pressure breaks the bag. The air rushes out and pushes the air outside away from the bag. The air continues to move forward in a wave. When the moving air reaches your ear, you hear a sound. Thunder is produced in a similar way. As lightning strikes, energy is given off that heat the air through which it passes. This heated air quickly expands producing energetic waves of air resulting in a sound called thunder.

Instructions

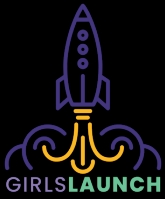
1. Blow into the brown paper lunch bag and fill it up with air.
2. Twist the open end and close with your hand.
3. Quickly hit the bag with your free hand.

Additional Resources

- 1 Weatherwizkids.com



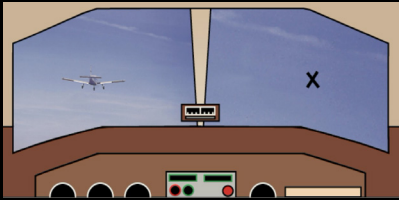
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In this activity, you will: Learn where your blind spot is located

Supplies Required:



All Students

- A 3x5 card
- A marker (pen, pencil, or crayon workds too)
- Your eye

Video

The blind spot experiment explained: <https://www.youtube.com/watch?v=QXzgokis33l>

Overview

The human eye is one of the most complex and sophisticated organs in the body. Its unique automatic focusing system outstrips that of any camera, and its light sensitivity is ten million times greater than the best film designed so far! But did you also know it has a blind spot?

When trying to avoid other aircraft in the sky, pilots are aware that sometimes the aircraft that they are looking for can slip into their blind spot. To combat this, pilots are told to slowly move their heads along with their eyes and scan in sections to pick up other aircraft their flight path.

Instructions

1. Draw an 'X' on one side of the right side of the 3x5 card
2. Now draw a dot on the left
3. Hold the 3x5 card in front of your face at arm's length, at eye level.
4. Close your right eye and with your left eye, look at the 'X'.
5. Slowly move the piece of paper cloers to your face. At one point, the dot will disappear and than reappear.
6. You just found your blind spot.

Additional Resources

- 1 nysci.org



www.obap.org