ISSUE 05
SPRING 2022

VERTICAL SPACE

A WOMEN AND DRONES ALL INCLUSIVE PUBLICATION



WOMEN OF COLOR
In Uncrewed Aviation

AIRSPACE LINK, INC.
Diversity, Equity, Inclusion

SALLY FRENCH:WRITE YOUR OWN PLAYBOOK!
Disrupt and Innovate

DRONE FORENSICS
Exploring Drone Forensic Challenges

MEET THE HONOREES
Women to Watch Global Awards 2021

DRONE LAW WITH LORETTA
What are Blue Drones?

CONTENTS

03
SALLY FRENCH
Drone Girl" Still Flying in the face of Convention
by Alicia Adams

05
DRONE GRANTOLOGY
by Renee Jones-Welch

09
FAA STATS

10
WOMEN TO WATCH GLOBAL AWARDS
Meet the Honorees!
by Dawn Zoldi

19
AIRSPACE LINK
by Yuliya Messieha





21
NASA
First Woman-NASA's Promise to Humanity

23
AN EXPLORATION OF DRONE FORENSICS CHALLENGES
by Rhonda Johnson

26
WOMEN OF COLOR IN UNCREWED AVIATION
Celebrating and Recognizing

55
TEXAS DISASTER WORKSHOP
Women and Drones Disaster Training

63
DRONE LAW WITH LORETTA
Blue Drones
By Loretta Alkalay

67
DIVERSITY, EQUITY & INCLUSION
Summary Report

A word from the founder and CEO of Women and Drones



It's a Wrap! As we wrap this issue of Vertical Space, we're also officially completing our celebration of the 5th Anniversary of our Women to Watch Global Awards. So it is with tremendous pride we present our 2021 Global Awards Honorees. In this issue, contributing writer Dawn Zoldi provides a comprehensive overview of our 2021 Honorees. In addition, we've included a sampling of the photos from the celebratory reception. You can find additional images from the awards ceremony and the reception here.

Welcome! This issue of Vertical Space welcomes two new writers to the Vertical Space team. In addition to the regularly featured column, Drone Law with Loretta Alkalay, we are delighted to have Erica Cooley and Alicia Adams join us as contributing writers. As a first-timer attending the Women to Watch Awards ceremony, Erica Cooley shares her perspective of experiencing our Women To Watch awards program. Alicia Adams profiles industry experts Sally French and Linda Quackenboss.

We're Here! Since the founding of Women and Drones, we have featured over two hundred amazing women in the industry. Along the way, one frequent question we have received is how many women of color are there in the industry? While there's no official database that tracks the race of pilots or other positions, we've taken on the challenge to feature women of color you may not know. We put the word out, and the bios came rolling in response to our request. The front cover features twelve women of the fourteen profiled in this issue. Rather than focus on just their role in the industry, we asked them to share a peek into their journey, advice for someone new to the industry, and a few fun facts. Due to the response, we'll feature another group in our Summer issue.

There is so much to look forward to in the months ahead, and we are excited to have you engaged with us working together to grow the global UAS/AAM industry.

Watch this Vertical Space!

Sharon Rossmark

VERTICAL SPACE

A WOMEN AND DRONES ALL INCLUSIVE PUBLICATION

FOUNDER

Sharon Rossmark

CREATOR/EDITORIAL DIRECTOR

Belinda Betancourt Dow

FEATURED COLUMN

Drone Law with Loretta

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Erica Cooley

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Renee Jones-Welch

Rhonda Johnson

Yuliya Messieha







ManagingDirector@womenanddrones.com

Drone Diva Wear

Mapping Book

Zazzle Designs

***Discount code DIVA10**

Welcome!
Happy New Year!

As you may know, my name is Belinda, and I am Vertical Space's creator and managing director. I am an FAA Certified Part 107 remote pilot and geospatial services provider in Central Texas and surrounding areas.

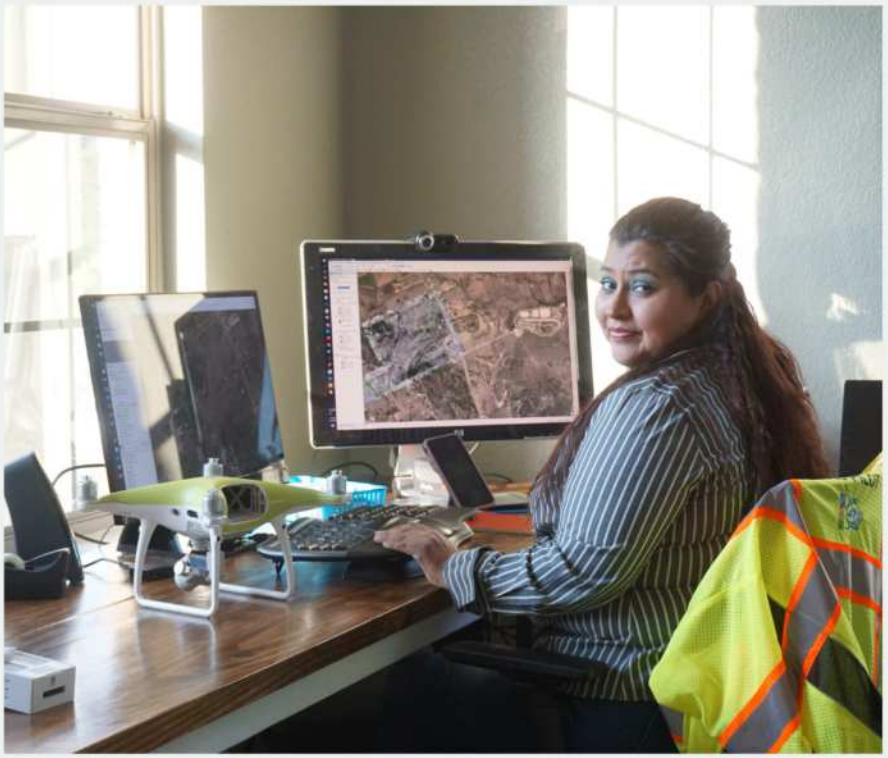
Our idea behind Vertical Space eMagazine is to connect, support, encourage and recognize achievements in the Vertical Space industry. We are very excited to add the Women of Color in The Uncrewed Aviation Series starting this issue. We hope to share your story today, not later.

Our pricing table is set to accommodate the smallest of businesses. We hope to help you in your growth and expand your network and even more.

Let's connect, create relationships and grow together.

Please reach out to our small businesses and the individuals that support us. Let them know you found them here. I hope you enjoy our Spring 2022 issue and we do look forward in sharing your story in the very near future.

Happy Mapping,
Belinda



Sally French "The Drone Girl": Still Flying in The Face of Convention

WRITTEN BY
ALICIA ADAMS



Sally French is no stranger to forging paths in male-dominated industries. She is a personal financial writer as well as a record-breaking powerlifter and exercise instructor and has encountered her share of surprised looks in all three of those areas. But it would be a college professor's unwitting bias in one particular journalism course that would help propel her to new heights of leading the way through another traditional male- heavy industry: drones.



"There were four men and four women including myself in the drone journalism class," Sally said. "And as the course progressed, the professor never offered any of the women a chance to hold the controls and fly the drone. I took it upon myself to buy a cheap toy drone to practice with outside of school. And when I came back to class and asked the professor to let me fly, he was completely surprised." Sally said. "You could tell he wasn't acting with bad intent-it's just that he never expected a woman to be that interested in drones."



Sally has taken that interest to new professional levels that has made even veteran drone industry leaders take note. Named as one of *Fortune* magazine's 4 top women shaping the future of the drone industry, Sally has given keynote talks around the globe, has been featured by media outlets such as the *New York Times*, *The Washington Post*, and Buzzfeed, and is the founder of her website The Drone Girl. "I never intended to get into drones," she said. "But once I was introduced to them, I was captivated," she said.



With women making up only 6.7% of the current FAA-registered pilots, Sally is keenly aware that progress is still needed for the normalization of women in this particular slice of the aviation sector. "While it is not as bad as it used to be, I am still consistently reminded that I am a woman," Sally said. When asked if that was a deterrent to becoming one of the first journalists to cover drones, she disagreed. "If anything, I used it as fire to drive myself even harder regarding my focus and my ambitions."

When asked what advice she would give to women considering starting a business in drones, Sally replied, "Go after what makes you passionate about what you do. If flying drones is it, then go for it. One of the wonderful things about drones is that the controller doesn't care if its is a male or female moving the sticks," she said.

"In addition, this is a great time to pursue a business in drones because there are so many different avenues available. You don't have to fly them. You can do sales, marketing, or social media. Or you can teach people how to fly drones. The drone industry is so new right now, you get to write the playbook."

Sally offered a last bit of advice for those considering going into the drone industry. "When you're starting out in your business, you don't have a lot of people at your side helping you. Having a community of supporters is really important during those times. When I first began, I had another woman in the drone industry who was there for me when I wanted to talk about the business, about monetizing content, about being a role model for female empowerment, etc. Having that support was instrumental to not only my business but also bolstered my determination to keep going after the goals I had."

You can read Sally's latest writing about drones and the drone industry at her website and also find her on social media at:

*graphic images can be found on Sally's website



Alicia Adams

Alicia Adams is a freelance writer from the Midwest covering health and technology. She briefly co-piloted a Cessna plane at the age of ten, fixed animatronic robots at sixteen, fell in love with photography at twenty, and finally put it all together when she got her first drone in 2015. When she is not writing, taking pictures, or flying, she can be found reading, walking her dog Finn, or planning her next travel adventure.





GRIT:GRANTS, RESOURCES, INSIGHTS, TRENDS

By Renee Jones-Welch, PhD

An indicator of grit is the ability to prolong satisfaction while working on a task. It looks like someone with perseverance and driven passion towards a goal, despite challenges or oppositions put in the way. Those with it, know how to self-regulate and postpone their need for positive reinforcement while working diligently on a project. Welcome to the heart and soul of a grant writer, or those who are voluntold or lumped under the job description as other duty as assigned.

GRANTS

The art of getting financial grants through the process of grant writing is known as grantsmanship, which includes grant writing skills needed to get peer reviewed research grants. Nowadays, it applies to development and fundraising from private and community foundations, corporate foundations, governments, and other funding sources. Procuring grants require an element of strategy, and writing successful grants depends on meeting eligibility criteria, following proposal instructions and answering the questions that prove how your organization can help them conduct their mission.

Just as a drone is a tool, a grant is a tool (for funding ideas and projects). Grants serve to help the public; it is not about chasing the big bucks but more about getting good results and cultivating funder relationships. A project asking to receive funding must have goals and aims that align with the funding source.

RESOURCES

For profit businesses take a look at the 2022 Ultimate List of U.S Small Business Grants. For first responders, check out Drone Sense, for grant opportunities. Review this list of resources to help you find an opportunity that best suits your requirements. For those seeking funding for STEM education, review the funding afterschool STEM website. This offers larger pools of national funding.

INSIGHTS

Remember the golden rules: Understand the needs of the grantors. Behind every grant program is a philosophy, goal, or a theory. These principles guide the distribution of funds and offer perspective towards how to approach the application and strengthen your persuasive efforts. Recognize the eligibility requirements and regulations with which you must comply. When in doubt, ask the grantors for help, remember they want to supply funding that helps. Most importantly, look at your project based on the review criteria and the lens of the grant reviewer. Analyzing your current revenue streams and deciding what percentage to distribute to each funding source help reduce risk and develop a diversified fundraising plan. This way you do not have all your potential funding coming from grant sources only.

TRENDS

There are funder behaviors to keep an eye on. Post Covid there is an emphasis on recovery and resilience work, as well as diversity, equity, and inclusion practices. Look for more online fundraising and social giving as part of nonprofit fundraising strategy. Be on the lookout for new donors and donor vehicles, such as donation through stocks and a movement integrating cryptocurrency and philanthropy.

The cultivation of funder relationships is critical. Enhanced communication with donors and funders shows that an organization is a responsible steward of funding. Grantors are interested in the financial health and sustainability of the organizations they fund, sustainability being the key word. They want to know the program can go on besides beyond the support they have provided.

Based on our past year of uncertainty and ambiguity, supplying contingencies for how you will get more funding and keep your programs and services afloat as the world changes and funding or revenue streams dry up is necessary.

May Angela Lee Duckworth's[1] quote be an inspiration to grant writers, "To be gritty is to keep putting one foot in front of the other. To be gritty is to hold fast to an interesting and purposeful goal. To be gritty is to invest, day after week after year, in challenging practice. To be gritty is to fall down seven times and rise eight."

[1] Duckworth, A. (2016). Grit: the power of passion and perseverance. First Scribner hardcover edition. New York, NY: Scribner.

Renee Jones-Welch, PhD is founder and the Chief Grantologist at Drone Grantology. Drone Grantology supports diverse organizations, ranging from public safety agencies, S.T.R.E.A.M (science, technology, reading, engineering, arts, math) programs, and non-profit organizations to for-profit entities who deliver valuable drone products, services, and programs.Drone Grantology specializes in grants development, strategy, and consultation services to help streamline the funding process for stakeholders in the unmanned aircraft systems (UAS) industry. Dr. Welch is a FAA licensed remote pilot, with years of experience as a grant writer coupled with more than fifteen years as a seasoned grant reviewer.



Drones for STEM Education

Women and Drones and NPS-DDP have established an outreach program to donate drones to STEM and educational programs. As new technology comes in and older drones get shelved, drones will be recycled and made available to STEM programs across the country.

- Drone donations will be made to nonprofit STEM organizations and schools with a focus on middle school and high school age students.
- Drone donations will be ongoing throughout the year.
- Sign up today to have your school or nonprofit STEM program on our list.

NPS DDP
National Public Safety Drone Donation Program
Woman and Drones & NPS-DDP.org
Partnering to Support STEM Programs with Free Drones

Sign Up

Member Showcase



By Sarah Montoya
Location: Little Rock, Arkansas
Equipment: DJI Mavic Pro
Technique: Taking in the sunset

WOMEN AND DRONES FLIGHT TRAINING

AUTEL ROBOTICS

EVENT COORDINATOR: Jon McBride, Autel

WORKSHOP: Women and Drones Flight Training

DATE: April 2, 2022, 9am-4pm

LOCATION: Salt Lake City, Utah



COURSE DESCRIPTION:

Autel Robotics is offering a one day workshop with indoor classroom and outdoor hands-on flight training with UAS industry expert Jon McBride.

The course is a comprehensive deep dive into the capabilities of the various Autel drones from the Nano to the Dragonfish. Autel will provide drones for participants to fly. In other words, no need to bring a drone to the workshop however, you are welcome to bring your Autel Drone. For additional information and registration click here.



PARTICIPANT/PILOT REQUIREMENTS:

- Must be a current member of Women and Drones
- Must have transportation from indoor workshop to outdoor flying field (approx. 15 miles away)
- W&D Participants must be fully vaccinated as defined by the CDC
- Participants do not need to be certified remote pilot (recreational pilots are permitted)
- Participants must bring personal protection equipment (PPE)
- Participants must bring laptop or note taking equipment



LEARN MORE

WOMEN AND DRONES BREAKS DOWN LATEST FAA NUMBERS

by Women and Drones



The number of women flying drones for business continues to trend upward but according to data released by the Federal Aviation Administration, they remain a small percentage of the overall Certified Remote Pilot population.

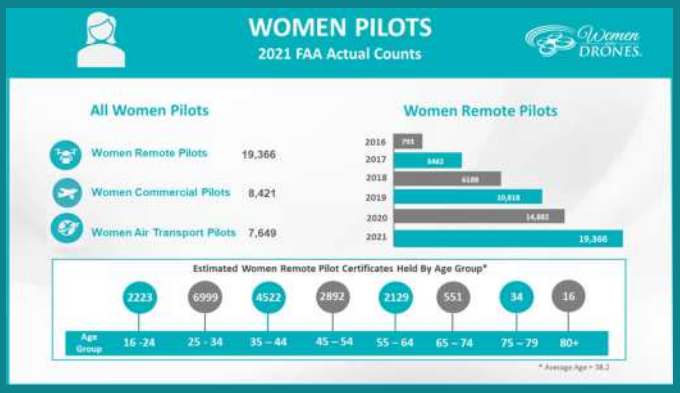
Women and Drones analyzed the FAA's 2021 year-end statistics. Since the enactment of the small drone rule six years ago, a total of 263,721 people obtained the Remote Pilot Airman Certificate, also called the Part 107, required to fly drones for commercial purposes.

The FAA reports 19,366 of those certificates, almost 8-percent of them, were earned by women. While that number represents a slight increase from the year before, it is also clear that the ratio of women compared to men is still significantly off balance.

The FAA statistics also reveal the largest number of women earning certificates are once again in the 25-to-34 age range. The smallest number can be found in the 80-plus range, although impressive to see 16 ladies in that group!

The statistics are also broken down by regions in the United States. No surprise the most populated states have the most female pilots. California leads the way with 2,036 Part 107 Pilots followed by Texas and Florida.

Additional Charts

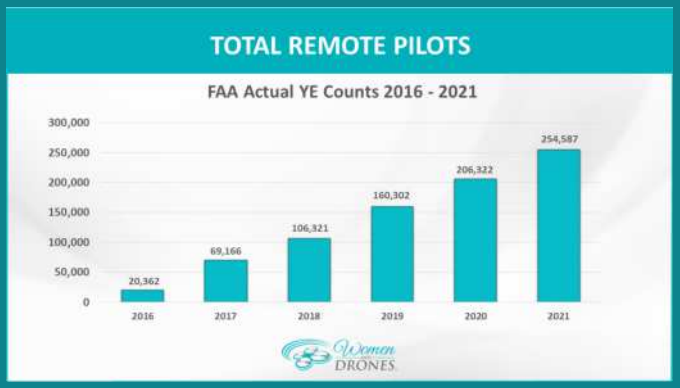


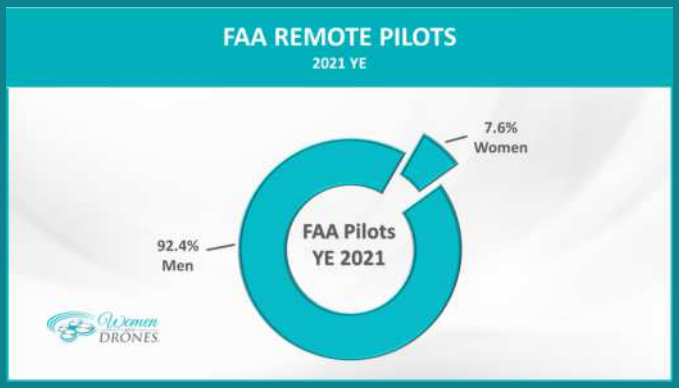
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WOMEN AND DRONES:

THERE'S PLENTY OF REASON TO BE OPTIMISTIC THAT THE UPWARD TREND WILL CONTINUE AS IT HAS FOR SIX YEARS IN A ROW

”





Meet the Honorees! Women to Watch Global Awards 2021



Women and Drones just celebrated its 5th Anniversary of the Women and Drones Women to Watch (WTW) Global UAS Awards program for the first time at CES 2022 in Las Vegas, Nevada. Meet the honorees, women and companies, that are making a significant contributions in the unmanned and advanced air mobility industry!



WRITTEN BY DAWN ZOLDI
COLONEL, USAF RET. AND
2019 WOMAN TO WATCH

IRIS AUTOMATION

This award recognizes an individual woman innovator who has significantly impacted the UAS industry and possesses outstanding business acumen and innovative practices that led to the success of her company, projects or the efforts of others.

The Iris Automation Entrepreneurship Award



Bronwyn Morgan

Morgan sees a future where unmanned aircraft will create safer sustainable inspections and mapping capabilities, critical medical transport options for people, supplies, and equipment and public safety operations equipped with an aerial safety net of real time data to keep all stakeholders secure and better informed.

"All three companies are my vision and under my direction," notes Morgan, who was also the former Associate Director of Georgia State University's Entrepreneurship & Innovation Institute. "I lead a team of professionals from public safety, professionals with expertise in drone operators, equipment and beyond visual line of sight operations, military, air traffic control, Fortune 500 UAS operations, telecom and utilities leadership, and eager interns who are working to bring our solutions to life every day."

Surrounded by this team of extraordinary talented professional drone pilots of various genders and ethnicities and an easy to navigate platform, her triad of companies have earned a reputation as industry leaders across various missions, including catastrophes and disasters, telecoms, oil and gas, energy, construction, and critical infrastructure.

Bronwyn has founded three companies and a non-profit:

- Xeo Air, an outsourced AI based drone services, data analytics and autonomous mission management portal for inspection and mapping;
- Airversity Drone Pilot Academy and Counsulting, a professional drone pilot training school for Part 107 exam prep as well as geospatial skill development and drone/vertical takeoff and landing (VTOL) equipment testing; and
- MOUV UAM, a platform for advanced air mobility (AAM) pilot training and AI-based autonomous smart cockpits for AAM aircraft.
- Black Women in Steam, an organization dedicated to galvanizing the efforts of women in STEAM fields.

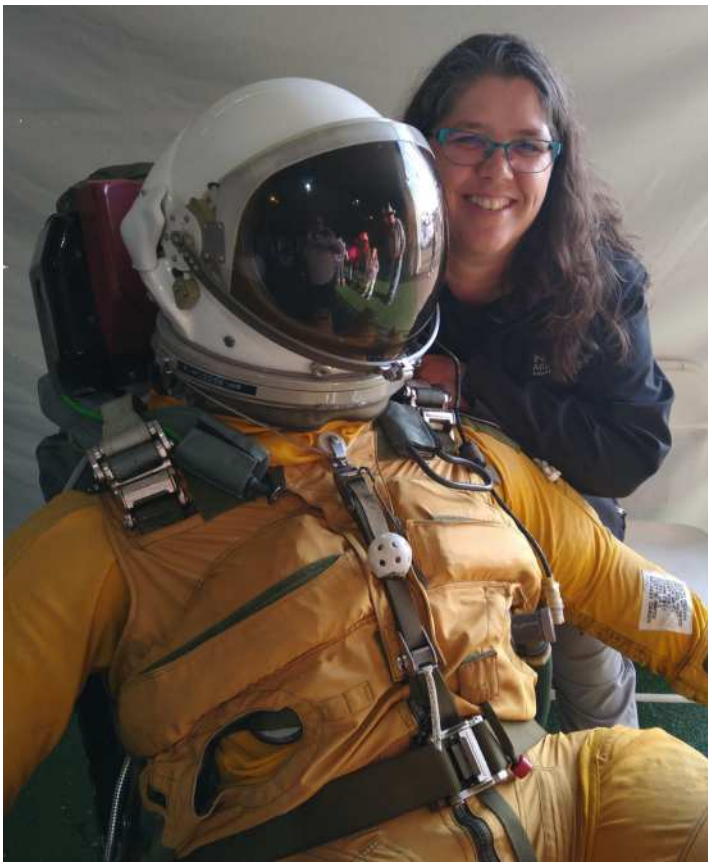
She hopes to inspire others who are on a journey of entrepreneurship in UAS/AAM and to be an example of what is possible. To that end, Morgan plans to expand Airversity's programming to children 9-16. " As we march into the future of advanced technology, let us build a future that is more inclusive than our past," she said.



UNMANNED SAFETY INSTITUTE™

The Unmanned Safety Institute (USI) Education Award


April Lanotte



This award recognizes an individual woman teacher or instructor who actively engages students with drones, shares the value of drones within curriculum and develops drone programs opportunities and programs and provides professional development to others as an ambassador for drone and STEM education.

To April Lanotte, the STEM Integration Lead for NASA's Aeronautics Research Mission Directorate, it is critical to bring as broad a workforce into the UAS and AAM industry as soon as possible to meet the needs of all people. "UAS and aviation impacts every single one of us," she said. "It's important for all voices to take part in shaping this constantly evolving landscape."

Her specific passion for drones began eight years ago when created a STEM activity to design and build a frame for a quadcopter. "I had a box of UAV parts, no instructions and I knew next to nothing about drones," she reminisced. She has since earned her Part 107 and developed a high school curriculum for the Aircraft Owners and Pilots Association (AOPA).

But one of the accomplishments of which she is most proud involves volunteer work outside of NASA, in her home state of Colorado. There she co-created, and still oversees, a statewide Aerospace Frontiers Education Committee (AFEC). This group, now in its 4th year, has grown from six members to over 150. They come from industry, organizations, post-secondary institutions, and K-12 education to collaboratively build, grow, and support aviation and space education for all students across the state. Her team developed a state-endorsed Career and Technical Education (CTE) advisory board, through which dual-enrollment drone curriculum will soon be available free to Colorado students. This will allow high school students to earn college or vocational credit toward a postsecondary diploma, certificate, or degree at a Colorado college while simultaneously counting as credit toward a high school diploma.

With her new-found recognition, Lanotte plans to do even more to support students in UAS and AAM.

The Sabrewing Aircraft Leadership Award



Karen DiMeo

This award recognizes an individual woman who demonstrates an exceptional ability to motivate people or groups to achieve a common goal, including but not limited to: education, policy, research & development, innovation, business and humanitarian efforts.

Karen DiMeo has been leading the UAS industry for decades, from an incredible 27 year career at the FAA, to her role as Head of Policy and Government Affairs at the GE company, AiRXOS, to her establishment of AERODiMEO in 2018. Her company is a consulting firm focused on advising businesses how to blaze trails in the commercial unmanned and advanced emerging technology ecosystem.

> *"The UAS and AAM industries are pushing the future of aviation," she noted. "My clients are pioneers charting new paths for the future of aircraft, airspace and transportation, oftentimes without the rules or regulations to support them."*

And when those rules fall into place, DiMeo expects we will all benefit from advances in healthcare and medical logistics, wildfire management, energy inspection, public safety and perimeter security. "Once enabling regulations for advanced operations are in place that allow these organizations to operate at scale, the impact on society will be profound," she said.

DiMeo hopes that being selected as a Woman to Watch in Global UAS award recipient will help raise awareness of the importance for industry leaders to not only push for the regulatory progress that will enable industry breakthroughs, but also to deliberately build the diverse workforce is critical to it. She plans to use this moment to help inspire young girls and women to think about careers in aviation, especially the drone and AAM industry.











SKYDIO

Public Safety/ Service Award

This award recognizes an individual woman who serves the public in any capacity and epitomizes community involvement or betterment service-oriented activities indicating commitment and sacrifice, including but not limited to: humanitarian efforts (drones for good), public policy, military/federal/law enforcement or public safety efforts.

Madison Jeffrey runs Swoop Aero's flagship national medical logistics in Southern Malawi, providing essential medicines and equipment to over a million Africans.

These logistics are seamless, thanks to Jeffrey. Even at the height of a global public health emergency, she scaled up operations in Malawi, in some of the hardest to reach locations in the world. In collaboration with Malawi's Ministry of Health and Population and Swoop's NGO partner, VillageReach, she forged Swoop's drone operations into one of the largest bi-directional drone networks in the world. Her processes significantly reduced journey times, including for emergency deliveries of blood, oxytocin and anti-rabies vaccines. Ultimately, this increased the quality of life for Malawi's citizens. It also saved lives.

But she delivered more than just much-needed medical supplies to the people of Malawi. She changed lives in another important way. She provided hope, as a role model for others to emulate. "Having people see diversity and equality in the work I do is so important as in some of the locations I have worked in. Within Africa, women haven't had the opportunity to work in these industries," she explained.

Jeffrey's best advice to others who want to make a difference by serving others is to tackle all challenges head on. She believes these make for the best learning experiences. She hopes her mere presence in the country will inspire others to follow their passion and their heart.

THE VOLATUS AEROSPACE

INNOVATION TEAM AWARD
GLOBAL AERIAL MANAGEMENT GROUP

This award recognizes a team, group, company, agency or organization in the drone ecosystem that actively encourages and inspires women to disrupt and innovate within the UAS industry.





Global Aerial Management Group (GAMG) Founder and CEO Toni Drummond created the 100% female company in 2020 at the height of the pandemic and used drone disinfecting to open up stages and schools.

A highly recognized leader and 25-year veteran in private aviation and logistics, serial entrepreneur and successful innovator, Drummond reflected on the company's rapid progress:

"It seems like we went from choosing our first drone this year, to training female pilots for our team, to spraying multiple facilities and schools using various formulas."

She opined, "The drone industry is nascent. Now is the time to inspire women to participate in all areas of the industry from the C-suite leadership positions, to pilots, to support fields and in related technologies."

GAMG plans to help inspire others through continued successes. It applied for FAA Part 137 approval to spray various approved solutions outdoors and expects approval soon. It also forged a collaboration with a major university for a specific drone-spraying case study, which will take place in 2022. It also plans to announce other plans to leverage its WTW recognition in 2022.

The best advice Drummond has for those in the industry who want to be successful, "Get involved, volunteer for educational initiatives, keep learning and become an active part of the solution. There is no manual written on 'how to' when it comes to the UAS industry. Share your passion. Help write our future."

The FoxFury Team Spotlight Award

This award recognizes a global co-ed team, group, company, agency or organization in the drone ecosystem whose overall work contributes to the positive public perception of drones ("drones for good") while fostering a culture of female empowerment and inclusiveness where women are engaged in key roles on the team and/or in leadership positions.

Unmanned Systems Operations Group, Inc. (USOG) provides expert drone delivery applications across air, land and sea.

Founder Pharns Genece, a service-disabled and minority U.S. Air Force veteran, was inspired to create USOG and to shape standards for the drone deliveries of medical supplies, after learning that in rural Africa sometimes blood samples were being delivered to the wrong places or to the wrong people.

As he grew the company, Genece deliberately built a diverse team that constantly strives to be a part of the local community and help with STEM awareness. “We work with community partners such as the Support the Enlisted Project (STEP) and Soroptimist Club to expose and teach youth about drones, programming, current and cutting-edge technologies,” he said.

USOG has also strategically partnered with companies such as Heven Drones, Valqari, Modal AI and the Blue Tech Incubator. According to Genece, these partnerships have assisted to push our team at USOG to “think bigger.”

Part of that big thinking includes developing an industry-disrupting delivery system to advance the drone delivery sector called the “Multi-Package Delivery System (MPDS).” It can deliver up to three packages at once.

Genece made the company’s tag line: “Saving lives today with the technology of tomorrow.”







“Although this is our tagline,” explained Genece, “we truly hope to save as many lives as possible using our advanced knowledge in technology, IoT and edge computing relating to unmanned systems.”

THE WOMEN AND DRONES DIVERSITY EXEMPLAR AWARD

This award recognizes a company, agency, or organization that "walks the talk" on diversity, equity and inclusion in the UAS/AAM industry by having significant diversity representation on their leadership team and/or proactive approaches to increase diversity across their team through proactive diversity recruiting, retention, training/education and workforce development programs.





Drone operators, drone software providers, state and local government clients and others rely on Airspace Link's AirHub Platform to help facilitate safe and scalable drone operations. The company also serves as an industry example of diversity, equity and inclusion (DEI).

With a female co-founder and more than 50% of women on the executive team, Lisa Peterson, Airspace Link's Vice President of Sales & Business Development attributes the company's success to its deliberate focus on culture. "The company would not be where it is today without our team and the value that our diversity brings to it," she said.

CEO Michael Healander noted, "We have some of the most diverse and talented minds in the industry working on complex and ever-evolving challenges. Ensuring that they are in an environment to do their best work benefits everyone."

Airspace Link intends to utilize its recognition of the Woman to Watch award to spread awareness of its mission to integrate drones at scale, helping the world recognize the benefits of drones for good and by providing living proof that diversity matters.

airspacelink™



Women to Watch Reception





















airspacelink™

SAFER, SCALABLE DRONE SOLUTIONS

By Yuliya Messieha
Head of People Operations







New researched released from a survey conducted in late summer 2021 found that almost 75% of respondents said they felt moderate to extreme concern about the lack of diversity, equity, and inclusion in the drone industry in general.

*Source DroneGirl.com

At Airspace Link, we've always been purposeful about our DEI efforts. With a female minority founder, **diversity** has been engrained in Airspace Link's culture from the start. Whether it's disability, race, veteran status, sexual orientation, pregnancy, age, or any other protected class, Airspace Link team is still small but mighty, demonstrating a makeup of diverse people working together towards a common goal. While it's always been important to bring diverse employees into the company, those efforts would be in vain without a continued focus on both equity and inclusion. As we are growing rapidly, the company has an opportunity to be intentional about the type of people we attract to the organization. While we have a very enthusiastic workforce that is generous with employee referrals, we are mindful of the fact that people tend to associate with and hence refer people that are like themselves. In order to broaden our diversity efforts, we focus on casting a wide net into the talent pool, achieving better results with targeted LinkedIn searches, supporting minority focused community organizations, and continuously looking for non-traditional avenues for recruitment.

EQUITY

Airspace Link focuses on a continued meritocracy environment, instituting fair and just processes and policies that ensure all employees can thrive. Fair and equitable policies is an important focus of our People Operations team. Our gender-neutral parental leave, equal treatment of benefits for married and domestic partners, and floating holidays that allow people of different cultures to honor the days that are important specifically to them are all examples of equity at Airspace Link.

INCLUSION

Those who feel their voices aren't valued won't use them. At Airspace Link, we strive to create a culture where everyone feels comfortable voicing their opinion and bringing their whole selves to work, even if (actually, especially if) those voices are dissenting from the group or majority. Leadership encourages vigorous debate, specifically elicits differing opinions on proposals, and then guides the team to work respectfully toward an aligned goal once a decision has been made. Having all of those ingredients in the process is critical to producing innovative, effective ideas and results for the business.

In all aspects of the Airspace Link business, an environment for our teams to continually optimize and that holds true for our DEIJ efforts as well. It's a strategic priority for us and will continue to be a focus as we find ways to be more diverse, equitable, inclusive, and just.

MEMBER SPOTLIGHT

BY ALICIA ADAMS

When **Linda Quackenboss** picked up a camera at eight years old, little did she know that her interest in photography would ultimately take her to the skies. Linda is a certified drone pilot and owner of her award-winning company, Linda Q Photography, based in Las Vegas, Nevada. Specializing in commercial construction and architectural photography and videography, she uses both ground and aerial cameras to capture the progress of job sites from start to completion, both exteriors and interiors. Linda also shoots photos and videos of fabrication processes, commercial real estate, and events like conventions and trade shows.

"I was in sales and marketing for ad agencies and television for several years and, during a career time-out with a bit of cancer, I realized I really should be using the skills I was gifted. In 2005 I decided to move forward with a full-time photography business instead of it being a side-hustle. I gravitated toward construction photography which was a perfect fit since I come from a family that had a construction company. The next step happened when a long-term client asked me to do drone photos as well. That was the beginning of my journey into aerial imagery."

Linda became Part 107 certified in 2017 and her logbook shows 255+ hours and 1700+ flights. "If you had told me before then that I was going to fly drones, I would have laughed at you," Linda said. "It's fantastic! The images I create show the progress of a project, the company's talent and it also reveals the craft and beauty of what they do. There's a bigger sense of story with drone photography and videography."

Linda said that demand for drone video and stills has substantially increased in recent years, with some of her clients asking for only aerial imagery. "Clients have different needs for coverage on their sites. They want weekly or monthly progress photos and footage to use in social media.

www.lindaqphotography.com

Aerial photos and videos complement the detailed images created at ground level and provide a big picture understanding of the whole project. For final portfolio images, I will fly at sunrise or sunset to add extra drama to the images and videos. They also want material to publish for their marketing brochures, investment proposals, and their company website. We supply ready-to-upload photos and videos, as we do all the video editing as well, including adding titles and background music."

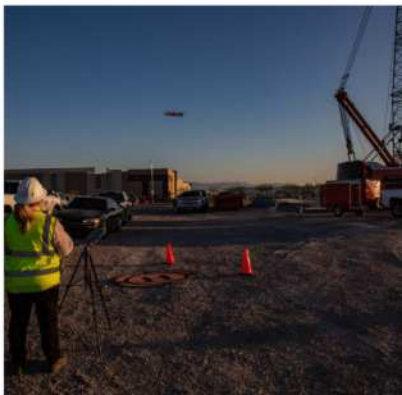
Linda is also exploring a new opportunity of offering mapping services with drone technology. "It's just a matter of time before my clients find out I've been training on it and start requesting that service as well."

While aerial photography is immensely enjoyable, like any other job it has its challenges. "My clients like to build near airports and that can limit my AGL (above ground level) depending on how close I am to the flight path. I fly regularly across the street from Nellis Air Force base which requires additional planning and authorization. I also routinely fly near high-tension power lines so always having a VO (visual observer) is part of my safety protocol.

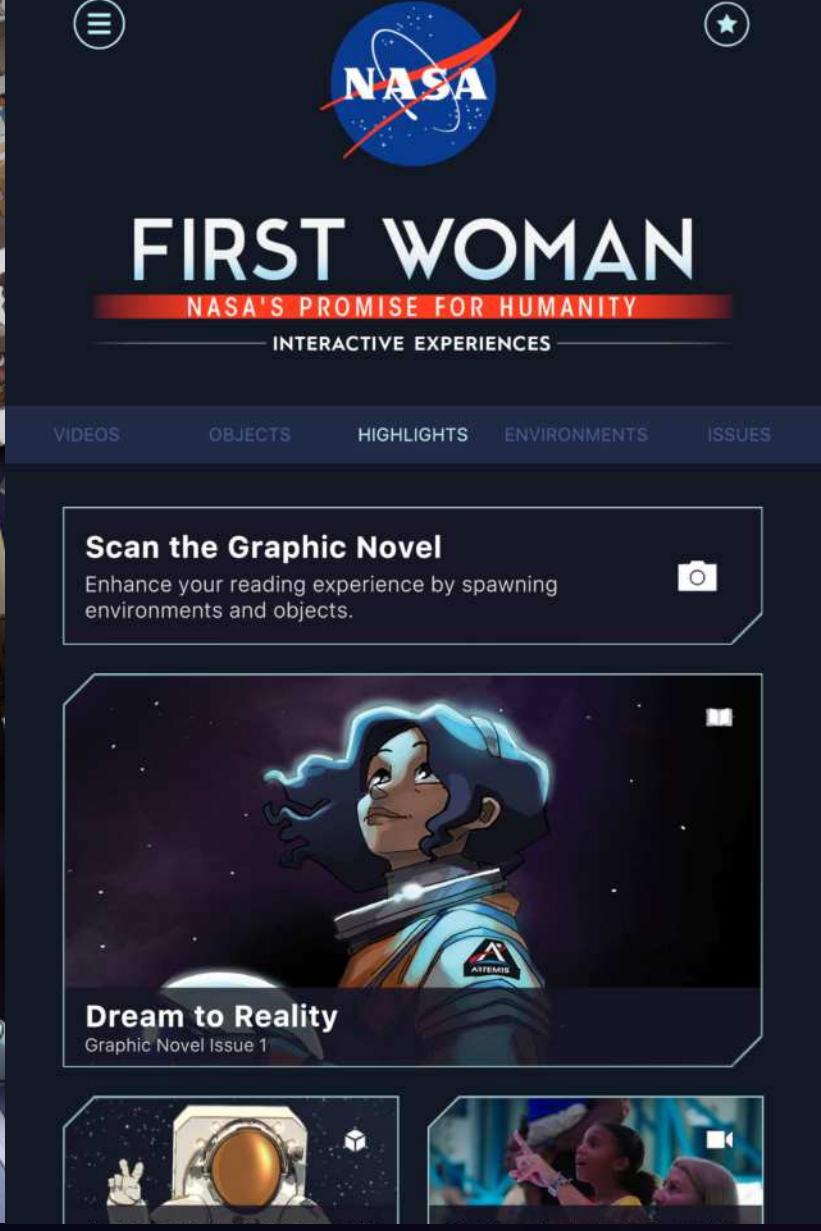
Even with these challenges, Linda wouldn't have it any other way. "I get to do something really creative that not a lot of other people are doing," she said. "The best part is the positive feedback I get from my clients. That part is very rewarding!"







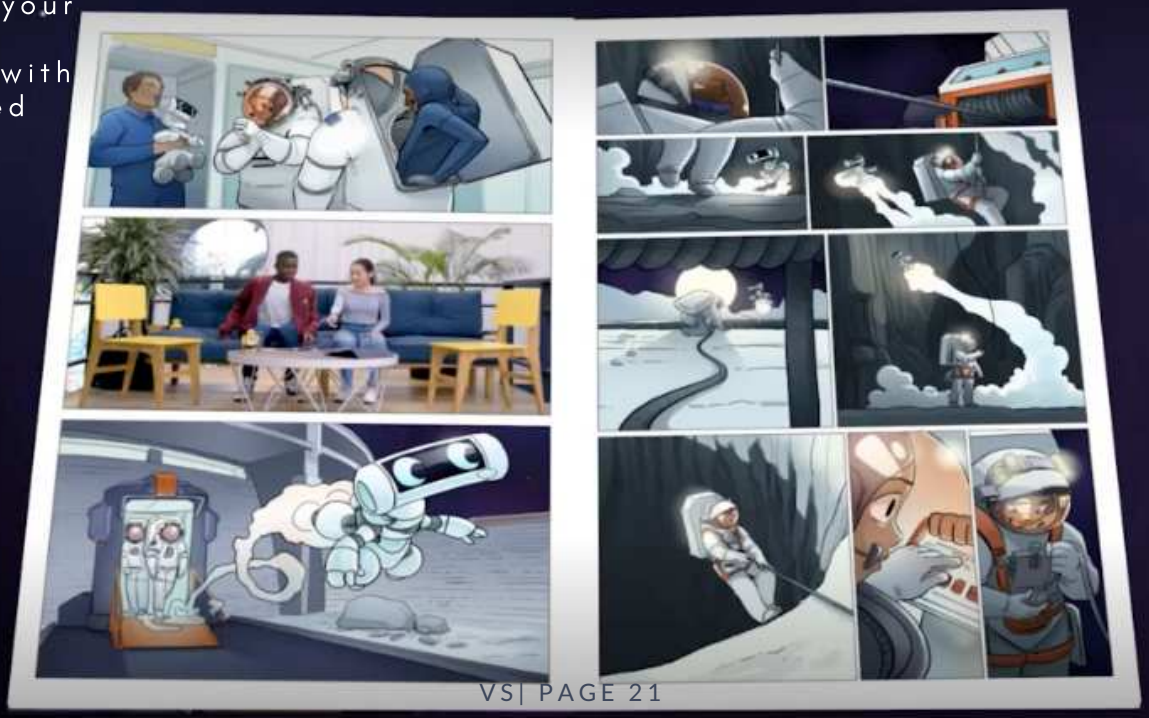




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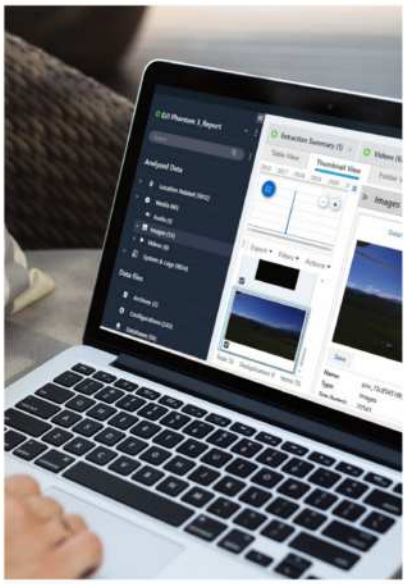


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An exploration of Drone Forensics Challenges

written by Rhonda Johnson

The increasing use of drones comes with the increased likelihood that the surveillance, intelligence, and reconnaissance features of drones will be used for criminal activities. Examples of such crimes include trespassing on private property, stalking, espionage operations against commercial and military targets, the smuggling of drugs and other illegal items, paramilitary operations, just to name a few. With drones providing possible data evidence in criminal and civil investigations, the need for a drone forensics/security component will certainly increase for organizations in the future. Drone Forensics is a relatively new specialization of Mobile Forensics that uses scientific methods and tools to extract and process evidence from UAVs and affiliated components for the purpose of criminal or civil litigation. Specifically, the goal of drone forensic investigations is to extract relevant data such as pictures or videos, reconstruct events by extracting flight data and attribute ownership of the drone. Much like digital forensics of traditional computing devices, it requires scientifically sound methods of extraction of evidence, event reconstruction, fact analysis and presentation.

www.ogunforensics.com

However, there are several challenges that face potential drone forensic investigations. UAVs contain a plethora of evidence both physical and digital in form. Physical evidence includes the drone itself, the remote controller/radio controller, server, digital containers within the SD card. Information regarding the drone's manufacturer, serial and model number, payload and MAC address are also critical pieces of evidence along with any meta data that can be extracted such as images and photos. The varied nature of this evidence makes it difficult to use standardized forensics tool to extract any information needed for a forensic investigation, especially with the varied nature of file systems, hardware, software, and firmware between different vendors. High levels of drone model customization and an increasing number of self-made drones can also frustrate forensic investigation efforts.

Other challenges include breaking flight data encryption, the fact that some UAV models don't have data logging capabilities, difficulty of obtaining a forensic image of UAV components, the reliance of volatile memory that disappears once a battery dies, and the difficulty of attributing ownership to the drone without access to the remote controller. Suspects may also use remote wipe out software to hinder forensic investigations if the drone has been seized by law enforcement.Researchers are also finding security vulnerabilities within drone firmware that can be used for De-authentication, hijacking and man-in-the middle attacks which could allow rogue operators to take UAVs out of the sky.

Keeping up with latest security threats and forensic challenges can be overwhelming for private and government UAV operators. Ogun Drone Forensics aims to provide online instruction and workshops on the emerging field of Drone Forensics as well as contribute to research projects that attempt to address some of the pressing challenges of the field. Some of our future course offerings include UAV Cybersecurity, UAV Forensics, and IoT Forensics.

BUCKEYE VERTICAL STUDENTS AT THE OHIO STATE UNIVERSITY COLLABORATIVE LECTURE SERIES

BUCKEYE VERTICAL
AT THE OHIO STATE UNIVERSITY
Student team focused on AAM, UAM, UAS



Continuing our goal to fuel the pipeline into STEM and aviation careers by connecting business and education, Women and Drones has continued the lecture series with Buckeye Vertical at The Ohio State University.

The second in a series of industry educational sessions featured two industry experts discussing how drones are being used to inspect America's aging infrastructure and water systems. Student leaders representing Buckeye Vertical at The Ohio State University, Rachel Younkin and Adithya Ramaswami organized the session.

Speakers included Jessica Chosid, the founder and CEO of NixieDip, Inc., and Jim Bonnardel, the Field Services Director for Hitec Commercial Drone Services serving Government, Industry, and The Media Arts. The session was moderated by Sharon Rossmark, CEO of Women and Drones CEO.

EXPANDING PARTNERSHIP WITH BUCKEYE VERTICAL AT THE OHIO STATE UNIVERSITY

About Buckeye Vertical:
Buckeye Vertical is a student-run organization at The Ohio State University. Their team is dedicated to giving undergraduate and graduate students the opportunity to explore and understand the field of Advanced Air Mobility (AAM), Air Mobility (UAM), and Unmanned Aircraft Systems (UAS). They have been accomplishing this by providing students professional development opportunities, such as the lecture series and project-based competitions. This series of lectures are available to the OSU community and industry professionals across the globe during the autumn and spring semesters. Buckeye Vertical's goal is to create a platform where students can begin to critically think about AAM's complexity, and its future, from the various professionals who are a part of the lecture series. Many of the students who attend gain invaluable insights and enjoy engaging and learning from professionals in this field. All members of the Ohio State community are welcome to attend the presentations, and attendance is also open to professionals outside of the Ohio State network. **Buckeye Vertical** at **The Ohio State University**



Rachel Younkin

Major: Aviation Management

Graduation Year: 2022



Adithya Ramaswami

Major: Aerospace Engineering

Graduation Year:2023

ELEVATE

YOUR STANDARDS



This book is for the uncrewed aircraft operator that knows the importance of safety and wants to elevate their standard operating procedures. Knowing where to start can be the hardest part. Inside this book, you will find checklists, helpful guidance, and resources to "Elevate Your Standards" and start your uncrewed aircraft systems operations manual.



Building an Operations Manual for your Uncrewed Aircraft Systems Company

Desiree Ekstein

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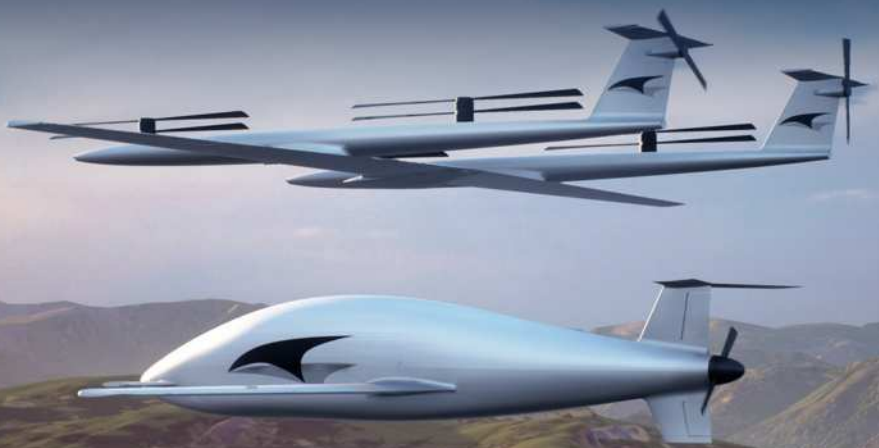


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WE'RE HIRING



WOMEN OF COLOR IN UNCREWED AVIATION

Our Women of Color series profiles a remarkable group of accomplished women. Like many in the industry, they bring extensive career experience and have developed a love for the industry. Because of their range of backgrounds, we've asked them to share their journey before coming into the industry. We think you will enjoy reading about the ladies who are, in their own way, contributing to the growth of the UAS/UAM industry.



Treat others as you wish to be treated

Sabrina Saunders-Hodge is the Director of the Research, Engineering and Analysis Division within the FAA's UAS Integration Office. She is the FAA's focal point for Unmanned Aircraft Systems (UAS) and Advanced Air Mobility (AAM) research with responsibility for leading the evolution of the agency's strategic framework and innovative planning for the applied research portfolio to support the safe and efficient integration of UAS and AAM into the National Airspace System. Ms. Saunders-Hodge collaborates with U.S. federal agencies and international civil aviation authorities (CAA) to lead the establishment of FAA's UAS/AAM research partnerships. In this capacity she was appointed to serve as the U.S. Government Senior Research Advisor to the UAS Executive Committee's (EXCOM) UAS Integration Senior Steering Group which includes the National Aeronautics and Space Administration (NASA), Department of Defense (DOD), Department of Homeland Security (DHS), Department of Commerce (DOC), Department of Justice (DOJ), Department of Energy (DOE), and Department of the Interior (DOI) to harmonize UAS and AAM integration efforts and exchange results from research and analysis. She also spearheaded the creation of the FAA's first International UAS/AAM Integration Research Roundtable, bringing together many CAAs from across the globe.

Sabrina Saunders-Hodge previously served as the Acting Deputy Executive Director of the Federal Aviation Administration's (FAA) Unmanned Aircraft Systems (UAS) Integration Office which serves as the FAA's focal point for all matters related to civil and public use of UAS in U.S. airspace and is responsible for coordinating the integration of advanced air mobility (AAM) operations into our aviation system. Within this role, Ms. Saunders-Hodge supported the Executive Director in leading FAA's efforts to safely integrate UAS and AAM operations into the National Airspace System (NAS).

Prior to joining the UAS Integration Office, Ms. Saunders-Hodge was the manager of the FAA's NextGen New Entrants Division with program management responsibility for executing UAS research as well as standing up the FAA's first UAS Center of Excellence.

Over the past thirty plus years Ms. Saunders-Hodge has worked in the field of satellite communications, contributed to the development of ICAO's global plan for transitioning to future communications, navigation, surveillance and air traffic management (CNS/ATM) systems for civil aviation, co-managed the oversight of FAA/European cooperative research and development initiatives, and worked on the development of operational concepts for technology enhancements within the NAS.

Ms. Saunders-Hodge holds a B.S. and M.S. in Computer Science from The University of Maryland and Johns Hopkins University respectively. Additionally, Ms. Saunders-Hodge is a certified Project Management Professional and a graduate of the Federal Executive Institute.

REFER A FRIEND OR COLLEAGUE

WHAT ADVICE WOULD YOU GIVE TO THE NEXT GENERATION OF FEMALE LEADERS?

I have been fortunate to have great mentors, role models, supporters and impactful opportunities throughout my life and career. I believe in succession planning and supporting others to realize their education and career goals. Reflecting on my career my advice to others is to:

- take calculated risks outside your comfort zone
- look at setbacks as a launching pad for moving forward
- never underestimate your ability, believe in your worth
- never cut corners
- surround yourself with positive influences
- maintain a healthy work life balance

- treat others as you with to be treated
- lastly study the best as well as the worst traits in others to determine how to best evolve your personal blueprint

THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME

I am an only child who grew up in an Army (Vietnam Veteran) family stationed in locations within the U.S. Europe and Asia.

I have traveled to many countries around the world professionally and personally.

Since my junior year of college I have been an active member of the first African American Greek sorority founded in 1908

For the past 15+ years I have been actively performing community service and holding local chapter (100+ mothers) leadership positions (Program Director, Vice President, Membership Chair, etc.) within a National organization founded in 1938 for mothers and their children dedicated to developing and inspiring future leaders. During my tenure, I have been voted Distinguished Mother of the Year twice.

FUN FACTS

I have a youthful 88 year old mother, a wonderful husband of 33 years and two talented, loving sons (29,19) who inspire me to enjoy life to the fullest, stay grounded and to be grateful.

I have a Miniature Schnauzer named Lucki who shares my Zodiac sign.

MORE FUN FACTS

I am an animal lover and can't resist petting zoos and welcoming deer families in my backyard.

I share a birth month and day with Stevie Wonder.

I enjoy a wide variety of music genres and artists along with Broadway & Off- Broadway plays

I love to travel to new places as well as favorite destinations.

I love spicy food especially from India, Thailand, Caribbean, Africa and Louisiana.

I love the Baltimore Ravens (win or lose), Baltimore Orioles and Maryland crabs!

“

SABRINA SAUNDERS-HODGE:

NEVER UNDERESTIMATE YOUR ABILITY, ALWAYS BELIEVE IN YOUR WORTH

”



“Do the activities that bring you both challenges and joy.”

Donna Auguste, PhD, is a graduate of the University of Colorado Boulder (PhD), Regis University (MS) and the University of California at Berkeley (BS). She has had a lengthy career as an engineer, data scientist, entrepreneur, and philanthropist, and is now founder and CEO of Auguste Research Group in Oceanside, California. Auguste Research Group conducts research involving sensors and actionable data, and advocates for diversity in STEM.

REFER A FRIEND OR COLLEAGUE

Dr. Auguste began working with drones as mobile sensor platforms, collecting and analyzing aerial datasets, and developing tools using artificial intelligence and machine learning techniques. She recognized that piloting drones and working with aerial data could be an accessible entry point into aviation industries for people within diverse communities that are underrepresented in aviation today. Specifically, Dr. Auguste is focused on Black, Hispanic/Latin, Indigenous, and Deaf communities. With her team at Auguste Research Group, Dr. Auguste is designing career training resources for teens and young adults, within those communities, who are excited about piloting drones, collecting data, and making meaning from that data.

In 2001, Dr. Auguste founded the Leave a Little Room Foundation, a non-profit organization that helped to provide housing, schools, electricity, and medical care in impoverished communities around the world for more than ten years. Earlier in her career, Dr. Auguste was the co-founder of Freshwater Software, a successful startup company that provided web server management tools for systems administrators. Before that, she was a senior engineering manager at Apple Computer where she led the software engineering team that developed the innovative Apple Newton personal digital assistant.

When she’s not nerding out with sensor technology, Dr. Auguste enjoys being a musician (bass guitar and piano, primarily Gospel music), riding bikes, reading much sci-fi, and especially spending time with her family.

WHAT ADVICE WOULD YOU GIVE TO SOMEONE CONSIDERING A CAREER IN THIS INDUSTRY?

Do the activities that bring you both challenges and joy, Do those activities thoroughly. Learn all about them and teach others about them. Be grateful for your opportunities in this one chapter in your life. In time, you will turn the page to a new chapter, and find different activities that bring you challenges and joy...

Then do those.

WHAT WOULD BE YOUR "DREAM JOB" IN AVIATION?

My dream job in aviation would be to iteratively co-develop software for augmented reality "glasses" that can overlay and interpret aerial data, and that can interactively ask/answer/investigate questions about the data in ways that are culturally responsive.

WHAT'S A FAVORITE BOOK OR MOVIE THAT YOU RECOMMEND?

Favorite Book:

"Dreamsnake" by Vonda N. McIntyre

Favorite Movie:

"Lilies of the Field " starring Sidney Poitier

THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME

I love to do logic puzzles. They're exciting and relaxing at the same time!

FUN FACTS

I have two wonderful grandchildren who teach me all about emerging consumer technologies.



www.augusteresearchgroup.com



Enter Now



IT's A Bird, IT's A Plane... NO It's Jasmine LeFlore!

Starting with STEM, Soaring into Business

Growing up by an airport, in Flint, MI Jasmine always had her head to the sky wondering what gave airplanes the ability to fly. Now as a Principal Business Development Engineer, a DEI leader, and a non-profit co-founder, **Jasmine LeFlore**, MSE, MBA is helping others soar into STEM. One of the core ideas she attributes to her success is to "ask for forgiveness, not for permission". She utilizes resourcefulness, strategic thinking, and motivation for continuous improvement to creatively navigate and execute any obstacle. As a self-proclaimed change agent, she believes she can inspire and uplift others by her unflinching ability to move things forward.

REFER A FRIEND OR COLLEAGUE

At Collins Aerospace (A Raytheon Technologies company), she works on new business pursuits including technology inorganic growth, competitive assessment, and strategy. Previously she worked as a chief of staff for the VP of engineering on key business transformation initiatives as well as other project roles interfacing with suppliers and customers certifying air management systems and engine build up equipment on commercial and regional jets.

Throughout her engineering career, Jasmine has been inducted into multiple talent accelerator cohorts and recognized with receiving numerous company for focusing on results, championing company culture, and diversity and inclusion. Zealous to create impactful change, she has been instrumental in diversity equity and inclusion (DEI) where she now sits as the Vice Chair of the African American Enterprise Board of Collins Aerospace Employee Resource Group (ERG) leading workforce development initiatives recruiting diverse professionals. She also went on to co-found a nonprofit called Greater Than Tech (GTT) where she specializes in teaching girls of color the intersectionality of engineering and business for them to be the next technology business leaders of the future. Through GTT, Jasmine reaches underserved students as young as middle school, who have little to no hands-on technology educational experience, nor know any engineers that look like them in their network.

Jasmine created original programs such as "Girl Meets Drone" and "Tech Outside The Box" using a fresh approach to expose students to key engineering and business concepts, while increasing her student's self-efficacy in STEM and showing them how STEM can be a force for good.

Jasmine has earned her BSE in Aerospace Engineering from the University of Michigan, her MSE in Interdisciplinary Engineering (with a Systems Engineering Concentration) at Purdue University and her MBA at Indiana University. Jasmine has been awarded the San Diego County Engineering Council 2022 Outstanding Engineering Service Award, the 2021 the Black Engineer of the Year Science Spectrum Award and 2020 Women of Color STEM Community Service in Industry Award. She is a RISE San Diego Gen 7 Fellow.

WHAT ADVICE WOULD YOU GIVE TO THE NEXT GENERATION OF FEMALE LEADERS?

Don't be discouraged by the lack of diversity in the industry. You are meant to be a crew member and your differences can be your greatest strengths.

Instead of thinking "I can't do this," think "How can I do this?"



HAVE YOU DRAWN PROFESSIONAL INSPIRATION FROM OTHER WOMEN?TELL US ABOUT SOMEONE WHO HAS INSPIRED YOU

I was always inspired by Ursula Burns. She had very humble beginnings and when I read she was the first black woman CEO in the U,S, I could only imagine what it was like for her to climb to the top, and how skilled she had to be to get there. She started off as an engineer and credits engineering as her foundation to success. She sees the synergy between engineering and business which is the main thing that I teach students so it's amazing to see her as a living example of the benefits of having the intersectionality of both disciplines.

THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME.

I am a trained ballerina.

I'm a huge music buff and I have a very eclectic musical selection. I can pretty much pick out any sample in a song.

I enjoy trying out extreme sports.

I'm an ambivert.

I am the youngest of 6.

www.greaterthantech.org





Goddess of Drones says, "Shut Up N' Fly" you can accomplish more at higher heights

Are You Flying High Enough!

Mrs. Shari A. Williams is the Senior Communications Specialist for the Southeastern Pennsylvania region of the Pennsylvania Public Utility Commission and has over 25 years of expertise in energy and state utility regulations.Mrs. Williams has provided advanced professional public relations strategic campaigns, consumer education and public affairs outreach to Pennsylvania consumers. Additionally, Mrs. Williams participates in the PUC's overall communications strategies, specifically related to consumer education, outreach and utility consumer education plan reviews. As one of the PUC's consumer education energy experts, Mrs. Williams represents the PUC at educational roundtables, workshops, train the trainer events, conferences, forums, virtual conferences, meetings, and the PUC's signature "Be Utility Wise" statewide conferences and events.

Mrs. Williams enhanced consumer education for Pennsylvania utility consumers in low-income and limited income assistance programs and has been integral to the advancement of energy efficiency programs and education about the shale gas industry and other energy economic resources. Currently, Mrs. Williams serves as the 2022 president elect for the Women's Energy Network Greater Philadelphia, (WEN), and previously held a board role for 4 years as Director of Community Initiatives. Mrs. Williams was also previously a member of The American Association of Blacks in Energy (AABE), The Coalition of 100 Black Women. Mrs. Williams is currently a member of The National Energy Utility Affordability Coalition, (NEUAC). Mrs. Williams was previously appointed to serve on Governor Wolf's Energy Action Transition Team and received the Ipraxis STEM Advocate of the year award in 2015.

In 2017, Mrs. Williams became a licensed Drone Pilot and initially did some commercial drone work, and then was contracted with Master Your Drone to teach private students and six cohorts of adults how to prepare for the Part 107 Knowledge Exam through a program at OIC.Mrs. Williams struck out on her own through her company "Shari Williams Enterprises" and hosted her own Goddess of Drones "Shut Up N' Fly" Drone classes with E-Stream Summer Program with the West Philadelphia Youth Environmental Justice Council, CCEEC, Inc, (in partnership with Urban Affairs Coalition & the Philadelphia Youth Network), Uplifting Urban Youth UAV/Drones Program Powered by Boeing, & most recently The National Teen Drone and Virtual Reality Technologies Initiative (in partnership with DWS Drone School, Drone Workforce Solutions and the City of Wilmington, DE).

REFER A FRIEND OR COLLEAGUE

WHAT ADVICE WOULD YOU GIVE TO THE NEXT GENERATION OF FEMALE LEADERS?

Reflecting on my upbringing, education, marriage and professional career. My advice to others is to:

- Stay on trajectory;
- Listen to understand and respond to resolve;
- Meet people where they are;
- Have your own team of cheerleaders, a village who celebrates and encourages you to reach your goals;
- Invest in yourself and others.

www.shariwilliamsenterprises.com

HAVE YOU DRAWN PROFESSIONAL INSPIRATION FROM OTHER WOMEN?TELL US ABOUT SOMEONE WHO HAS INSPIRED YOU.

Kim Players, owner of Master Your Drone inspired me to become a licensed remote drone pilot. Kim knew I was an advocate of STEM careers and education and shared her love of drones with me and inspired me to look at the potential career opportunities.

WHAT'S A FAVORITE BOOK OR MOVIE YOU WOULD LIKE TO RECOMMEND?

Favorite Book:

"Becoming" by Michelle Obama

THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME

I am the second oldest of four siblings. (all girls)

I am a professional model with Expressions Model and Talent Agency and Mike Lemon Casting, and have appeared on several billboards, in print catalogs, and magazines.

I did drone footage for the #SayHerName Philly video (promoting action to end police brutality against women) in Philadelphia, PA July 3, 2020.

I did drone footage and created a video for the "Veale Retreat" in Turks and Caicos in 2020.

I was interviewed on The Speak Easy Podcast by Altovese Pelzer in 2020 and the topic was "Are you Flying Too High" where we discussed the drone industry and how to get more women involved.

FUN FACTS

I have a youthful 81-year old mother, a wonderful husband of 27 years and two talented, loving daughters, and a handsome grandson who inspires me to stay focused on science by learning about dinosaurs and elephants.

I encourage my family, friends, and associates to work out with me almost every morning, live on my private page "Shari's Let's Get Fit Together."

I share a birth month with Beyonce

I love to travel, and my favorite destinations are the Caribbean Islands.

I don't like spicy food.

I love the Philadelphia Eagles and Sixers (win or lose), but I'm usually a fair weather fan!





Grantologist Matters

The Art of Mixing Grants Development and Drones

Renee Jones-Welch, PhD is Chief Grantologist at Drone Grantology LLC. Unlike many grant writers, Renee mixes a blend of grants development, strategy, and consultation services to help streamline the grant process and lifecycle for stakeholders within the unmanned aircraft systems (UAS) industry. Drone Grantology offers intensive support and consultation to diverse organizations, from public safety agencies and S.T.R.E.A.M programs to for-profit entities who deliver valuable drone products, services, and programs.

As a retired learning and workforce development executive, she has a proven record in content curation and integration of learning technologies to create engaging solutions for diverse audiences ranging from K-12, college academia and modern adult learners. Renee is devoted to incorporating diversity and inclusion into learning content and experience.

As an advocate for children, families and communities, she has been dedicated to helping nonprofit organizations operate more efficiently and identify and secure the funding they need to do their good work for well over 15 years. Her experience includes developing criteria for grant elements, watching grant activity and developing requests for proposals used to distribute grant funds. She is also an expert in the technical review of grant applications.

As a FAA certified remote pilot, with years of experience as a grant writer, administrator, and reviewer, she leverages 20 years of experience as a workforce development professional, and a doctorate in educational policy, a master's in online education and a bachelor's in finance from the University of Illinois at Urbana – Champaign. Renee spends her time between Chicago and Las Vegas.

REFER A FRIEND OR COLLEAGUE

WHAT ADVICE WOULD YOU GIVE TO THE NEXT GENERATION OF FEMALE LEADERS?

- Meditate or practice the art of self-healing. In a world full of distractions, it's imperative that you find moments of peace, stillness and reflection.
- Self-study and continually educate yourself, personally and professionally.
- Surround yourself with people who have skills, talents and styles differing from yours and be openminded to receiving diverse perspectives.
- you're the author of your thoughts, speak clearly, concisely and with confidence.
- Have faith, stay prayed up, and believe in your passions, abilities and gifts.

THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME

I am a believer of Feng Shui practices, which claims to use energy forces to harmonize individuals with balance and harmony in their living & workspaces, so that life force energy or Chi flows, increasing prosperity, health and happiness.

www.dronegrantology.com

HAVE YOU DRAWN PROFESSIONAL INSPIRATION FROM OTHER WOMEN?TELL US ABOUT SOMEONE WHO HAS INSPIRED YOU.

I find inspiration in a variety of people and things. Most recently, from the pioneers and forward thinks that are Women and Drones members. I had no idea of the women influencers in the industry, across the globe, and their amazing work in the UAS/drone industry

I would have to say that the person who has most greatly inspired me is Sharon Rossmark, CEO of Women and Drones. As an encourager, she's the person you want to check in with when you're discouraged, misguided or need wise advice. Behind her low-key demeanor and comforting words, lie gifts of leadership and perseverance. I admire her passion towards exposing girls to STREAM careers and elevating women in this industry. Her wisdom, guidance and evolving experience are highlighted by her connections and engagement within the UAS world. I consider her a visionary, innovator, trusted advisor and influencer.

WHAT'S A FAVORITE BOOK OR MOVIE YOU WOULD LIKE TO RECOMMEND?

As a children's author, my favorites include my two books. DaPooh Gets the Chickenpox and DaPooh Goes to Virtual School. Both are based on my sons' experiences and are dedicated to my granddaughters.

WHAT WOULD BE YOUR "DREAM JOB" IN AVIATION?

The Vice President, Community Engagement and Workforce Programming handles design, development and operation of a comprehensive engagement program that will activate the public, communities and other stakeholders to the UAS industry.

My focus would expose youth and adults to aviation/aerospace careers, as well as support the development of community continuing education and workforce training opportunities. I imagine engagement and outreach activities designed to educate and promote drones, their benefits and use cases to communities. With direct responsibility for program design, policy development, and outreach, I would be a successful candidate with experience in program design, learning and development, diversified fundraising, events management, and community outreach.



“

RENEE JONES-WELCH:

YOU ARE THE AUTHOR OF YOUR OWN THOUGHTS, SPEAK CLEARLY, CONCISELY AND WITH CONFIDENCE

”



The Drone Boss Lady

Creating A Community of Drone Boss Ladies.

Ashlee Cooper, MLS (ASCP)'s success as a molecular microbiology scientist prepared her for success in the drone industry. She has more than10 years of experience as a STEM educator and certified clinical laboratory scientist. Her career in academia includes training medical residents to managing, designing, and instructing STEM labs at post-secondary institutions. She served on the campus safety board as the Chemical Hygiene Officer; and sat on the Science Olympiad Board and many other educational task forces.

Becoming a Part 107 pilot presented life-changing opportunities. Ms. Cooper's drone-industry credentials include certification as an FAA Remote Pilot with an sUAS rating; Pennsylvania Drone Association Board Member; Federal Aviation Administration Safety Team Representative and DronePro.

Ms. Cooper began with instructing her code-learning and drone-flying 4-year-old to finding Droneversity with the mission to continue the Black aviation legacy in the drone revolution. As an industry member of the FAA Unmanned Aircraft Systems Collegiate Training Initiative, Droneversity is committed to creating career pathways for economic development, starting with self-paced and live Part 107 prep courses and flight training. Ms. Cooper has developed STEAM-aviation training for multiple organizations for all ages. Droneversity's comprehensive curriculum is behind its students' Part 107 100% pass rate. Her Beginner Aviation and Drone Navigators programming includes drone camps to prepare students for the future job market.

WHAT ADVICE WOULD YOU GIVE TO THE NEXT GENERATION OF FEMALE LEADERS?

You don't have to choose. You can make your passions profitable. Most of your messages will be that you can't.

Ignore them, no matter how difficult it is to get them out of your head. Surround yourself and follow women like me who are rooting for you.

WHAT WOULD BE YOUR "DREAM JOB" IN AVIATION?

My dream job is my company Drone Navigations and its' education component- Droneversity. I feel so blessed to be able to build an aviation legacy that empowers women and African Americans to be part of the drone revolution.

THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME.

I am a craft mom who started a party planning business -A Savvy Creation - during COVID19. My need for aerial shots of my balloon decorations at a party led to me learning to fly drones. I love creating and designing crafts with my 4-year-old daughter. Her cooking crafts are featured on her YouTube channel - Little Savvy Academy.

www.droneversity.org

REFER A FRIEND OR COLLEAGUE

HAVE YOU DRAWN PROFESSIONAL INSPIRATION FROM OTHER WOMEN? TELL US ABOUT SOMEONE WHO HAS INSPIRED

My grandmothers, mother, aunts, many cousins, and my sister own, or have owned businesses. I am the great-granddaughter of Augusta Cooper. As a young woman, she saved her money and paid for land on an installment basis so she could move from Arkansas to Flint, MI for a better life. She thought she was buying a house and upon arrival found it was only land - no house. So she saved her money and built a house, and then went on to own 15 properties in her lifetime. She was also a foster care parent and finally retired at age 93. I am the daughter of Katherine Paige Cooper who worked for many years as a construction flagger and built a business that now employs 100 flaggers. I am the sister of Alisha Cooper, who moved from bank teller to bank owner. I could go on and on. My inspiration abounds.

WHAT'S YOUR FAVORITE BOOK OR MOVIE YOU WOULD LIKE TO RECOMMEND?

The Disney story of Princess Tiana is a favorite. She is a visionary who is told by friends, family, and white male bankers that her childhood dream to open a restaurant is too big for her. She does the hard work of making it happen anyway.

FUN FACTS

I play the piano and love to sing. My daughter and I love, love, love to swim.





The Outlier

A Hidden World

Carmaine Means is a multi-Emmy award winning national network television and streaming news cinematographer at Warner Media/Discovery+ for CNN/CNN+as well as CNN Air. She graduated from Columbia College Chicago in Film and Television Production and started her career in Rockford, IL, at WTVO, ABC 17 in August of 2002. She quickly moved on to work at WVTV, WB 18 in Milwaukee, WI, in May of 2003 and six months later she accepted a position at Tribune owned, CLTV/WGN 9 that brought her back home to Chicago. In 2005, she started working at WLS-TV, ABC 7 News and joined WBBM-TV, CBS 2 News in 2010. Carmaine's Emmy award nominations and wins are for Breaking News, Southwest Airlines “Off The Runway At Midway”, "190 N", "Windy City Live”, “Chicago-ing" with Bill Campbell and "At the Movies" as a camera operator and photojournalist respectively.

Some of her career highlights include being a faculty member for National Press Photographers Association (NPPA), since 2016-present,in 2016; becoming the first FAA licensed female drone operator for CBS 2 News Chicago; judge world wide broadcast news photojournalism work for the White House National Press Association in conjunction with National Geographic in February of 2012 & 2015. Accepting a position as a national network cinematographer for CBS Network News in 2018, Los Angeles, California bureau. Current Projects include Jussie Smollett documentary, scheduled to air March 31, 2022, HLN Originals/HBO Special, Black Police in America, scheduled for release in Fall of 2022 and Freedom Day’s Sex Trafficking Doc, releasing March 16, 2022.

REFER A FRIEND OR COLLEAGUE

www.dronegirlphotography.com

WHAT ADVICE WOULD YOU GIVE TO THE NEXT GENERATION OF FEMALE LEADERS?

- Be bold
- Be gracious
- Be fearless and unapologetic about your dreams and your talents.
- Keep you eye and your heart focused on the goal and you will achieve whatever you set your mind to.

WHAT WOULD BE YOUR "DREAM JOB" IN AVIATION?

My dream job in aviation would be an aerial cinematographer working with a stunt pilot capturing amazing aerial images, in amazing places on movies Operating camera systems like the ShotOver camera systems ranks #1 as a dream job in aviation.

WHAT'S A FAVORITE BOOK OR MOVIE YOU WOULD LIKE TO RECOMMEND?

One of my favorite and inspiring podcast is Brene Brown, Oprah Winfrey Soul Series and Gabby Bernstein

HAVE YOU DRAWN PROFESSIONAL INSPIRATION FORM OTHER WOMEN? TELL US ABOUT SOMEONE WHO HAS INSPIRED YOU.

Of course! My inspiration comes from two women who have encouraged me professionally to make your mark and when doing so you will become a inspiration to other young black, brown and white women who seek to become the next photographer or cinematographer in an industry that is dominated by men in the workplace. Sharon Camille Farmer, Mable Miller and Jackie Denn. Sharon Farmer was the first African American woman to be hired as a White House photographer and the first female to be Director of the White House Photography Office. She was Chief Official White House Photographer from September 1998 - January 20, 2001 for President Bill Clinton.and First Lady Hilary Rodham Clinton. Her projects include 'Art Against Aids', "Twenty Years on the Mall", "A View of Our Struggle" and many others. Much like Sharon, Mable Miller and Jackie Denn were some of the first women who were field broadcast news photojournalist in Chicago and upon my first encounters I had with Mable and Jackie, I was inspired and determined to be one of the very best and often time one of the "first".

FUN FACTS

I love to travel. I love to participate in indoor roller skating. I also love to boat and ride motorcycles, ATV's, jet skis, and bicycling. If I could eat only one type of food for the rest of my life, it would be fish/seafood and Marin Kombucha.

THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME

I love Chai tea latte's made with oat milk from two of my favorite places. Groundworks in Los Angeles, Ca and Madcap in Detroit, Michigan. I also love dogs and contemporary modern or modular style of homes. I love new discoveries and I love to watch a good documentary movie.





Overcoming fears and exceeding expectations

Stepping Outside of the Box

Tonie Smith is an FAA certified Unmanned Aircraft Systems (UAS) operator, and the owner of TS Aerial Media, LLC. In this role she applies decades of managerial and training experience to promote responsible use of drone technology in the business sector. Aviation and technology were not originally a part of her career objectives, but Tonie met the challenge of transitioning to a new professional field with enthusiasm. She is an active member of Women and Drones, and supports Drone as First Responder teams for Police Departments in California as a Remote Pilot in Command and Training Manager with Flying Lion, Inc.

REFER A FRIEND OR COLLEAGUE

Born and raised in southern Wisconsin, Tonie began her professional career in a support role for a large law firm, after which she held an Administrative position with the State of Wisconsin, Department of Administration. From there Tonie held administrative and managerial positions until acquiring a Real Estate Sales license. After becoming a licensed Sales Agent, she quickly transitioned to the role of advisor and client relationship manager, assisting the brokerage with development of bi-lingual service options for its diverse customer base. She developed a knack for defining processes to increase client satisfaction and improve productivity, and Tonie held on to those objectives throughout her career. From managing small teams to working as a franchise sales consultant for Fortune 500 companies, her commitment was to assist businesses to operate more efficiently, effectively, and profitably.

While prepping for the home inspector exam, Tonie discovered her passion for drones and started TS Aerial Media with a goal to build a bridge between this booming technology and the Real Estate and Property Management industries. In the process she continues to partner with local and national drone industry partners to meet the growing demand in the drone industry for certified commercial pilots. In this role she is very visible in the community and uses the exposure to promote participation in technical fields by women and youth from under-represented groups.

www.tsaerialmedia.com

Faith, family, and a love for learning and sharing have been constant features of Tonie's life, and the source of her motivation. For over 20 years she has been an active volunteer in North, South, and Central America, working directly with the community. TESOL certified, Tonie is fluent in Spanish, and actively studying Mandarin Chinese. Years of traveling and interacting with different cultures all over the world broadened Tonie's world view in a positive way and she hopes others will be inspired to move outside of their comfort zone to pursue their goals.

WHAT ADVICE WOULD YOU GIVE TO THE NEXT GENERATION OF FEMALE LEADERS?

Challenge yourself to be the best that you can be in the field that fits your long-term goals.

Be careful not to allow negative narrative to stop you from trying, especially if that narrative is from people that do not support your success.

THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME.

I lived in Costa Rica for 6 years and learned to prepare mango 100 different ways. I then moved to Panama, near the Panama Canal, enjoying the heat and pace of life before moving to California.

HAVE YOU DRAWN PROFESSIONAL INSPIRATION FORM OTHER WOMEN? TELL US ABOUT SOMEONE WHO HAS INSPIRED YOU.

The women in my family have been an inspiration to me since I was young. My mother and her sisters were all very unique, and each chose a different career. But each one of them displayed a dynamic strength and tenacity for life. They had conviction, were loyal and loving to friends and family, and their support has been a key to my ability to overcome fears and hesitation that would otherwise have been obstacles to my accomplishments.

FUN FACTS

I managed to cartwheel across the equator in 2018, at one point successfully straddling one hand in each hemisphere.

WHAT WOULD BE YOUR "DREAM JOB" IN AVIATION?

I would love to lead the development and delivery of a drone education and training program for students to raise awareness of career opportunities in drone-related professions.

WHAT'S A FAVORITE BOOK OR MOVIE YOU WOULD LIKE TO RECOMMEND?

The Bible is still on my regular reading list. I haven't found another book with as much timeless advice and positive outlook on the future. It helps me to stay focused on my priorities.





The Future Is Here For Aviation and Energy Services

Behind the Scenes of Innovation in Practice

Fawn A. Hentrel, Founder/Chairman/President/CEO of Spotlight UAS Enterprises LLC, is a thought leader who is light years ahead of our time. Described by colleagues as highly motivated, she is passionate about providing insight and access to opportunities that help our community of color identify and/or excel in new careers, especially the youth and young adults. Collaborating with other leaders to build and scale promising talent management organizations and workforce programs is only one of her many callings. Her innovative approach to workforce development has led her to spearhead successful organizations such as Accendi Group, an award-winning management services and talent solutions firm. She has also held leadership positions and/or consulted with various notable firms on organizational strategy and human resource management practices such as MTV Networks, Deutsche Bank, and ABB Ltd, formerly ASEA Brown Bover.

Always operating ahead of the curve, this serial entrepreneur's latest contribution to innovation is Droneport Link, a brand of Spotlight UAS Enterprises LLC. Fawn's ability to quickly grasp a subject and formulate questions to assess a situation, producing a multitude of action-oriented solutions, is evident in this new venture. Droneport Link is a modern green global aerodrome and energy service, the answer to rail, road, and river transportation needs everywhere. The company focuses on technology enhancements for electronic vehicles (EVs) and autonomous and piloted flights for today, as well as modern science to replace existing technologies and materials for the future. Droneport Link's mission is to create unprecedented value for its users and the community with the highest quality of services, facilities, and energy products. With a people-first mindset, Fawn's values of responsibility to act with honesty and thoughtfulness and the integrity to do the right thing – even when no one is watching – is woven into the fabric of Droneport Link.

An eloquent public speaker, Fawn addresses subjects like women's issues, running small businesses, and much more.

As a deeply committed advocate of gender and race equality, she champions for programs that support and promotes these causes. This is apparent through her membership with the Society of Human Resource Management and Association of Training & Development. She also serves on the National Small Business Association, Washington, D.C. Leadership Council. The forward thinker graduated from Simmons University with a bachelor's degree in business and completed a master's degree in human resource development from the University of Phoenix.

Fawn's contributions to society, science, and technology don't only reflect her innate capacity for knowledge, and sharing that knowledge, but also her selfless sense of obligation to the betterment of the general populace. Balancing her technological and evolutionary initiatives with a blended family life, Fawn is a dedicated wife and mother of two daughters and three sons. When she isn't strategizing new ways to help the community or revolutionize our future in technology, she loves to read, cook and bake, and travel.

WHAT ADVICE WOULD YOU GIVE TO THE NEXT GENERATION OF FEMALE LEADERS?

By being genuine and authentic, you earn trust from others. Your legacy is about leaving a positive impact and growing others, so build others up at every opportunity, keep your word and you will leave a legacy that will last.

REFER A FRIEND OR COLLEAGUE

www.droneportlink.com

HAVE YOU DRAWN PROFESSIONAL INSPIRATION FORM OTHER WOMEN? TELL US ABOUT SOMEONE WHO HAS INSPIRED YOU.

I have always been told I can be anything and do anything through Jesus Christ who strengthens me. As a preacher's kid and coming from a family of professionals and educators, I was told this all my life. Growing up, my parents presented me with black women who had excelled in various fields who encouraged me to believe I can do and be anything I put my mind to, and be influential in the professional and personal relationships I establish. One of these women who I drew inspiration from was trailblazer Patricia Harris. She was the first Black woman to serve as an American ambassador when she represented the United States in Luxembourg, and the first appointed to a Cabinet when she was named Secretary of Housing and Urban Development.

THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME.

Besides being a passionate baker and cook, I am also a classically trained soprano.

WHAT'S A FAVORITE BOOK OR MOVIE YOU WOULD LIKE TO RECOMMEND?

Collective Genius: The Art and Practice of Leading Innovation by Linda A. Hill. This is a great research book with case studies of innovation in action that shows what innovation is in practice, as well as what it takes to succeed as a leader to make it happen.

FUN FACTS

I have two great Danes and a lab pit. Writing is one of my favorite things to do, and playing golf is something I've enjoyed since I was eight years old.





Legal Family Daughter Forges Her Own Path as an Engineer

NASA Intern to Executive in 28 Years

Laurie A. Grindle is the director for Programs and Projects at NASA's Armstrong Flight Research Center in Edwards, California. Appointed to this position in December 2020, she is responsible for the advocacy, formulation and implementation of the center's flight projects as well as policy and business management of the center's programs.

Grindle served as the deputy director for Programs and Projects from February 2017 until being named the acting director in April 2020. She supported the director for Programs and Projects in providing center leadership in implementing agency and center programs and flight research projects in support of NASA's mission.

REFER A FRIEND OR COLLEAGUE

Grindle began her career with NASA Armstrong during a 1992 internship in the center's Aerodynamics Branch, which she followed up in 1993 with a full-time position in the same branch. Grindle served as a principal investigator on the Advanced L-Probe Air Data Integration experiment flown on the F/A-18 Systems Research Aircraft, on which air pressure was used to determine angles of attack and sideslip and traditional air-data measurements. Grindle was an aerospace researcher on the F-16XL Ship 2 Supersonic Laminar Flow Control project and was involved in analysis of space shuttle maneuvers that resulted in expansion of the shuttle's aeronautical database.

Grindle became chief engineer for the X-43A Hypersonic Research Vehicle (Hyper-X) project in 2004 after serving as the X-43A deputy chief engineer starting in 2001. The X-43A was a 12-foot-long, autonomous aircraft that, when flying at test conditions, demonstrated an "air-breathing" engine called a scramjet. In 2005, Grindle became chief engineer of the Dryden Unmanned Air Vehicle (UAV) Business Unit. While in that role, she monitored technical aspects of NASA UAV projects, including X-48B Blended Wing Body low-speed vehicle and Global Hawk projects, to ensure that objectives were met. From 2007 to 2011, Grindle was the NASA project manager for the Orion Multi-Purpose Crew Vehicle abort test booster (ATB) project, during which she was responsible for management of NASA's interests in the project.

From 2011 to 2013, Grindle was the associate mission director for Aeronautics at Dryden. She assisted the Aeronautics mission director in the management and technical direction of the center's aeronautics activities to ensure the effective and timely support of manned and unmanned flight research programs.

Before serving as deputy director for Programs, Grindle was the project manager for the NASA Unmanned Aircraft System (UAS) Integration in the National Airspace System (NAS) project from 2013 to 2017. She was responsible for the execution of the $290 million project designed to conduct technology development to reduce technical barriers related to the safety and operational challenges associated with enabling routine UAS access to the NAS.

Grindle earned Bachelor of Science degrees in aeronautical and mechanical engineering in 1993 from the University of California, Davis. She earned an Engineer-in-Training license in 1994. She received a Master of Science in mechanical engineering in 1998 from California State University, Fresno.

Grindle is the recipient of a 2018 NASA Outstanding Leadership Medal, a 2013 NASA Exceptional Achievement Medal, and a 2005 NASA Exceptional Service Medal, among others. Also in 2013, Grindle was selected as a Women@NASA honoree.

WHAT ADICE WOULD YOU GIVE TO THE NEXT GENERATION OF FEMALE LEADERS?

- Don't underestimate the importance of volunteering for things. I offered my help with 2 assignments that became pivotal to my career
- Be open to change and be willing to do things outside your comfort zone.
- For college students, use the summers to work in different areas to figure out in which aspects of your major you would enjoy working.
- Know yourself and be true to yourself when making decisions about your career. If the role you currently have isn't really what you want, look for ways to make a change to get there. Talk to your supervisor or others to get ideas. Not everyone gets lucky to have a supervisor that looks out for them, so you have to look out for yourself. Pursue short term assignments or other opportunities at work to gain a variety of experiences.

www.nasa.gov

THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME.

- My father and brother are both lawyers and my mother is a judge. By becoming an engineer, I definitely forged a different path from the family business.
- I have a private pilot's license and instrument rating. At 18 I piloted a Cessna 172 from Los Angeles, CA to Lansing, MI and back to take my cousin back home after vacation. Those early flying experiences gave me an appreciation for the importance of our National Airspace System.
- I have some diverse interests. In additional to having a pilot's license, I'm a certified divemaster, ride a unicycle, have been skydiving, and walked 267 miles in Spain with my mother for her 80th (125 miles) and 81st (142 miles) birthdays.
- I did internships each summer that I was in undergraduate school. My last summer internship was for NASA at its Dryden's Flight Research Center. After I graduated, I started working at the Center full-time, which was renamed to Armstrong Flight Research Center in 2014.

“

LAURIE GRINDLE:

BE OPEN FOR CHANGE AND BE WILLING TO DO THINGS OUTSIDE YOUR COMFORT ZONE.

”



Improving the World for our Future Generations

Software Manager, Technology, Construction and Drone Lover

Alicia Jefferson, president of Nai Xander, Inc, a corporation that specializes in program management, software development, workforce development and construction. Alicia loves innovative technology, drones, construction and helping others. Alicia is a native Washingtonian who has managed various multi-million-dollar technology and construction projects for over 20 years.

Raised in a family of real estate brokers and investors Alicia grew up around construction. She started as early as 10 years old working on construction projects. During the summers serving as cheap family labor and taking on tasks such as digging ditches to lay underground wiring. By her teenage years she was assisting her uncles in renovating various residential and commercial buildings throughout the DC Metropolitan area

In her mid-twenties Alicia began purchasing her own buildings and would serve as project manager for all types and phases of construction projects.

Alicia's love of construction is met with her passion in technology, software development and workforce training. She's held various program management positions working primarily on Federal Government projects managing multi-million dollar large software implementation systems. Some of her project locations include: US Drug Enforcement Agency (DEA), US Department of Housing and Urban Development (HUD), US Department of Transportation (DOT), US Department of Energy (DOE), US Census Bureau, National Transportation Safety Board (NTSB), Blue Cross Blue Shield, McKinsey and the DC Department of Employment Services.

These tasks would help her obtain outstanding communication and leadership skills and specialized experience in implementing ITIL-based software systems for Service Management, Problem Management, Incident Management, Asset Management, Inventory Management and Fleet Management. Alicia has also implemented cloud-based systems including crypto nodes.

REFER A FRIEND OR COLLEAGUE

During Alicia's time at the US Census Bureau she worked with GIS mapping data and was introduced to drones. In her spare time, she would study UAV/UAS design, operations, network, infrastructure and use cases. This love and study continue to this day. Alicia is a proud member of Women and Drones. She actively pursues ways to help advance the industry and make it more accessible to others.

Alicia holds an Bachelor's degree in Environmental Science from the University of DC, Bachelor's degree in Computer Science from the University of Maryland and a Master's degree in Technology Management from the University of Maryland.

WHAT ADVICE WOULD YOU GIVE TO THE NEXT GENERATION OF FEMALE LEADERS?

Find your Passion and build a life around it.

THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME.

I can never spend too much time around the ocean. I also believe dogs make the best pets.

www.naixander.com

HAVE YOU DRAWN PROFESSIONAL INSPIRATION FROM OTHER WOMEN? TELL US ABOUT SOMEONE WHO HAS INSPIRED YOU.

I have been surrounded by inspirational women. It started with my upbringing by my mother Gladys. She helped establish my foundation of good work ethics and ambition to do well. In the professional field it was my former supervisor MaryAnne Sullivan, the former General Counsel for the US Department of Energy. She was the first woman I knew who was so well-rounded. She was intelligent, accomplished, ambitious, assertive, beautiful, very sociable, and highly respected in her field. I have so much respect for her. MaryAnne inspired me to further my education by obtaining my master's degree, work harder to advance my career, and continue to find ways to help others.





GREAT IDEA!

CHECK OUT WOMEN AND DRONES CAREER CENTER

Sign into WomenandDrones.com career center for job search and resume critiques!





The future of policing; Leading a new way with technology

Live, Learn, and stay positive always...

Lieutenant (ret) **Miriam Foxx** retired from the U.S. Navy on Oct 1, 2012 after completing 22 years of service to our country.

Foxx joined the Navy in July 1990 when she went to boot camp in Orlando, Florida. Following boot camp, she attended Signalman "A" school and subsequently was assigned to the U.S.S. McKee (AS-41) for 5 years home ported at the Submarine Base Point Loma, California. While stationed on the USS McKee Lieutenant Foxx earned her Enlisted Surface Warfare (ESWS) qualification as a third class petty officer and later promoted to Second Class Petty Officer.

In 1995, Foxx attended the 9545 Law Enforcement training school at Lackland Air Force Base in San Antonio, Texas. Upon completion of training she reported to the Security department at Naval Base San Diego (32nd Street). Foxx completed a lateral conversion package and became a Master-at-Arms second class and soon after promoted to First Class Petty Officer. Foxx remained at Naval Base San Diego for a total of three years.

In November 1998, Foxx left active duty to pursue a career in Law Enforcement. In April 1999, Foxx re-affiliated with the Navy Reserves as a Master-at-Arms First Class Petty Officer assigned to the Chinhae Security unit, Navy Reserve Center San Diego. During this time, Foxx was assigned to Law Enforcement Physical Security (LEPSU) Unit 0194 at NAS North Island and later Navy Security Force San Diego Detachment one.

Following the tragic events on September 11th; on September 21st, 2001 Foxx was recalled to active duty and was stationed at Naval Air Facility El Centro where she completed a year of mobilization.

REFER A FRIEND OR COLLEAGUE

In 2003, She was promoted to Chief Petty Officer becoming a department heads for training and administrative departments.

In 2004, Foxx applied for a Limited Duty Officer program as a Security Officer and was selected in 2005.Foxx held Commanding Officer positions for Navy Reserve Navy Security Force San Clemente Island and Navy Reserve Navy Security Force Naval Weapons Station Seal Beach.

In July 2011, Foxx was again recalled to active duty in support of Operation Enduring Freedom as Assistant Officer in Charge of Detention Facility Joint Task Force Guantanamo Bay, Cuba.

WHAT ADVICE WOULD YOU GIVE TO THE NEXT GENERATION OF FEMALE LEADERS?

- Be fair, firm and consistent
- Remember your personnel; their success is your success
- Choose your words wisely; as leaders we tend to forget what we say and how we say it can really impact our employees in both good and bad ways
- Don't be the junior person with the secret; lack of communication is never a good thing

www.chulavistaca.gov



THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME.

When I was 15 years old my siblings and I helped deliver my younger sister at home; our mother went into labor early and did not make it to the hospital in time. This is one of the greatest moments in my life and through the grace of God; my sister was born with no complications.

I am a retired Naval Officer with a combined 22 years (Active/Reserve duty). Once of my last deployments was to join Terrorism Taskforce Guantanamo Bay, Cuba as an AOIC overseeing detainee operations.

I am an Adjunct Professor with Azusa Pacific University teaching Undergraduate Criminal Justice Management courses.

I am a doctoral student pursuing my PhD in Criminal Justice with an emphasis in Leadership from Liberty University.

FUN FACTS

I was born in Queens New York, so I am a huge NY Giants fan

I love anything SyFy; Star Trek to Star Wars and everything in between

In 2019 completed the California POST Command College program. which is a 14 month program designed to prepare law enforcement leaders of today for the challenges of the future. As a result I published an article in **POLICE1 MAGAZINE**

WHAT'S YOUR FAVORITE BOOK OR MOVIE YOU WOULD RECOMMEND?

Colin Powell's memoir; It Worked For Me: In Life and Leadership is definitely my favorite book. I am originally from Queens NY and joined the military and later got my commission in the United States Navy. I really identified with Colin Powell's upbringing and his love for the military. I too loved my military service and the United States Navy. When I was enlisted I was a Master-at-Arms (Navy's military police) and when I transitioned to a civilian law enforcement career; I remained in the Navy Reserves because of my love of service.

I have personally learned from and utilized many of the leadership lessons Retired General Powell talks about in his book. It has made me a better leader in every way possible.

Her personnel Medals/awards include the Navy & Marine Corps Commendation Medal, Navy & Marine Corps Achievement medal (4), Meritorious Unit Commendation Medal, Battle “E” ribbon, Navy Good Conduct Medal (2), Navy Reserve Meritorious Service Medal (2), National Defense Service Medal (2), Southwest Asia Service Medal w/bronze star, Global War on Terrorism Expeditionary Medal, Global War on Terrorism Service Medal, Sea Service deployment ribbon, Navy & Marine Corps Overseas Service ribbon, Armed Forces Reserve Medal w/”M” device & bronze hourglass and Navy Expert Pistol Medal, Surface Warfare Specialist.

Currently, Foxx is employed by the Chula Vista Police Department (CVPD) and has been since November 1998. She has worked the following, patrol division as a patrol officer and Street Team Gang Suppression Unit. Investigations division as a detective in the Family Protection Unit, Robbery/Homicide Units and a supervisor in the Property Crimes. Administrations division as the supervisor of the Professional Standards Units. As a Lieutenant, she has held the positions of Patrol Watch Commander Professional Standards Unit Lieutenant, Criminal Investigations Division and Special Operations Division Lieutenant.

Currently she is the Strategic Operations Lieutenant overseeing long-term strategic operations and development. Additionally, she manages the CVPD UAS Program which includes the first of its kind DFR (Drone as First Responder) program.

Her collateral duties include being the Commander of the Crisis Negotiations Team and the Honor Guard Teams, and California Police Officers Association (CPOA) Region IX Chair.

Foxx holds a Bachelor of Science degree in Business Management and a Master of Science degree in Administration of Justice and Security from the University of Phoenix. Foxx is currently a doctoral student pursuing her PhD in Criminal Justice with an emphasis on Leadership from Liberty University.

In her spare time, Lieutenant Foxx is an Adjunct Professor with Azusa Pacific University teaching undergraduate Criminal Justice Management courses.



She Came, She Saw, She's Conquering!

This woman is creating an aerial revolution

CURRENTLY

- Bronwyn Morgan is a sUAS (drone) Part 107 certified pilot, FAA Safety Representative and FAA Drone Pro, and is the Founder of Xeo Air (www.xeoair.com), an AI based drones on demand, data analytics and autonomy platform for mission management that connects B2B clients in telecom, catastrophic response, oil and gas, energy, construction, civil infrastructure.
- In addition, she is Founder of Airversity Drone Academy + Consulting (www.airversity.com), a professional UAV pilot training school for both Part 107 exam prep and drone flight and private and public safety consulting.
- She is also leading MOUV UAM, a platform for AAM pilot training and AI based autonomous smart cockpits for AAM aircraft.
- She is the 2022 Women and Drones Entrepreneur of the Year Honoree

FUTURE VISION

- Morgan is working to build an aerial revolution through UAVs (unmanned aerial vehicles and UAM (unmanned aerial mobility) to bring people into the 4th Industrial Revolution wit new skills in remote flight, remote sensing, AI, data science, engineering and autonomy.

WHAT ADVICE WOULD YOU GIVE TO THE NEXT GENERATION OF FEMALE LEADERS?

Go for it! Don't let any preconceived notions or antiquated beliefs limit you from pursuing your dreams. Barriers can be overcome. Surround yourself with people that will encourage you, boost you and help you find your path to greatness. Don't seek easy paths, tackle issues that are difficult. Step up to the challenge, speak your mind, listen , learn, be coachable. Respect others that have gone before you and work hard on your challenged areas. You've got this!

PROFESSIONAL BACKGROUND

- Graduate of the University of Illinois
- Previously, Head of Subkulture Innovation Lab, an innovation and advanced tech solutions firm focused on future proofing Fortune 500 companies.
- Worked with Silicon Valley based companies for the past 20 years.
- She spent over 18 years at P&G and The Coca-Cola Company in strategy, sales and innovation.
- Former Associate Director of Georgia State University's Entrepreneurship & Innovation Institute.
- Founder of Black Women In STEAM, an organization dedicated to galvanizing the efforts of women in STEAM fields. Has been a Board member for TEDxPeachtree, StartUp Atlanta, and a finalist for Woman of Year for Women In Technology.
-

WHAT WOULD BE YOUR "DREAM JOB" IN AVIATION?

I really wanted to be a fighter pilot and then springboard to JPL as an aerospace engineer and move along to NASA to become an astronaut. The life achievement of traveling in orbit in a space that few have gone would be a perfect cap on this lifetime.

THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME

In my spare time, which there is little of, I enjoy baking and archery. I also have been a meditation coach and resident teacher at Bliss In Me Meditation for over 15 years. I've studied with monks, gurus and masters from around the world. I see meditation as a key element in my life and seek to help other find the bliss within them.

www.xeoair.com

REFER A FRIEND OR COLLEAGUE

HAVE YOU DRAWN PROFESSIONAL INSPIRATION FROM OTHER WOMEN?TELL US ABOUT SOMEONE WHO HAS INSPIRED YOU.

I have been inspired by many women who have been pioneers in their profession. One of my biggest inspirations is Bessie Coleman. Ms. Coleman, wanted to become an aviator and left the country to find her path. During a time that was particularly difficult for black people, especially a black woman, she left the country to do so. Despite the odds she persevered and achieved her dream of being the first black person to earn an international pilot's license. Ms. Coleman demonstrates to me the tenacious attitude you need to be successful in a world that doesn't see you as heir apparent for challenging roles. I draw inspiration from her and keep her close to my thoughts on my journey.

FUN FACTS

- I love chocolate, I mean high end, niche chocolate. I've purchased some of the best on the planet and find it a guilty pleasure that is irreplaceable.
- I really enjoy interior design and one owned my own firm and created my own line of furniture.

WHAT WOULD BE YOUR "DREAM JOB" IN AVIATION, AND WHY?

I really wanted to be a fighter pilot and then springboard to JPL as an aerospace engineer and move along to NASA to become a astronaut. The life achievement of traveling in orbit in a space that few have gone, would be a perfect cap on this lifetime.





First Generation

Creating your own path to success

CURRENTLY

- **Belinda Betancourt Dow** is a sUAS (drone) Part 107 certified pilot, and is the Founder of Dow GeoSpatial, an aerial data acquisition services company that utilizes UAV imagery for the investor, real estate and AEC, industry.
- In addition, she is creator and managing director for Vertical Space e-Magazine
- She is also the author of Thinking about getting into Mapping. This book provides a practical understanding of the fundamental concepts of aerial mapping.
- También es autora de ¿Está considerando empezar en el área de la cartografía?: Integre los servicios de diseño de mapas aéreos dentro de su negocio con drones. Este libro proporciona una comprensión práctica de los conceptos fundamentales de la cartografía aérea

FUTURE VISION

- Belinda is working to build Vertical Space eMagazine's audience and recognizing even a greater number of individuals that are underrepresented in the UAV/UAS/AAM/VTOL industries.

- Belinda is also working on her continued education in the GIS and UAV industry.

WHAT ADVICE WOULD YOU GIVE TO THE NEXT GENERATION OF FEMALE LEADERS?

Don't give up! Everyone is and starts in different places in their lives. I was a non traditional student. I was married and had three kids and was going to college for my Bachelors. It's hard, but don't give up. It may feel that it is taking for ever, but you will get there, and when you do. It will be the greatest feeling ever.-I am a First generation college graduate.

REFER A FRIEND OR COLLEAGUE

PROFESSIONAL & EDUCATION BACKGROUND

- Graduate of Slippery Rock University
- Bachelor of Science in Applied Geographic Technology
- Associate in Applied Science in Engineering Technology
- Certifications in AutoCAD-Draft and Design
- Worked with drone acquired data the last 6 years.
- OSHA 30 certified
- EGRT-FEMA certs
- Pix4D training workshops
- GeoSpatial Manager 6 years, Pre and Post Processing aerial data imagery with proper selection of data perimeters that will provide DEM, Contours, Orthophotos, Point Clouds, and 3D data for 3D modeling and analysis that can be analyzed in GIS or AutoCAD software platforms for private and AEC industry use.
- Construction Progression Reports for the AEC industry.

HAVE YOU DRAWN PROFESSIONAL INSPIRATION FROM OTHER WOMEN? TELL US ABOUT SOMEONE WHO HAS INSPIRED YOU.

I have been inspired by a few ladies that I have met in person and have connected with virtually. Sharon Rossmark, Kara Murphy, Loretta Alkalay, La'Quata Quanna Sumter, Desiree Ekstein, Fiona Lake, Sally French, Monica England, Wendy Erikson Anstine, and Taylor Mitcham . These ladies bring it every single day to further, enhance, to educate and inspire many.

Thank you ladies for your courage to disrupt and innovate in the UAV/UAS/AAM/VTOL industries.

WHAT'S A FAVORITE BOOK OR MOVIE YOU WOULD LIKE TO RECOMMEND?

Favorite Book;)

"Thinking about Getting into Mapping" by Belinda Betancourt Dow

THINGS THAT PEOPLE MAY NOT KNOW ABOUT ME

- I grew up with Poly Rheumatoid Arthritis.
- I just had a total knee replacement
- I am a native Tejana
- I am the youngest of 6 siblings
- I enjoy listening to a variety of music, techno, Tejano, country, Latin and African beats
- I am a Gemini

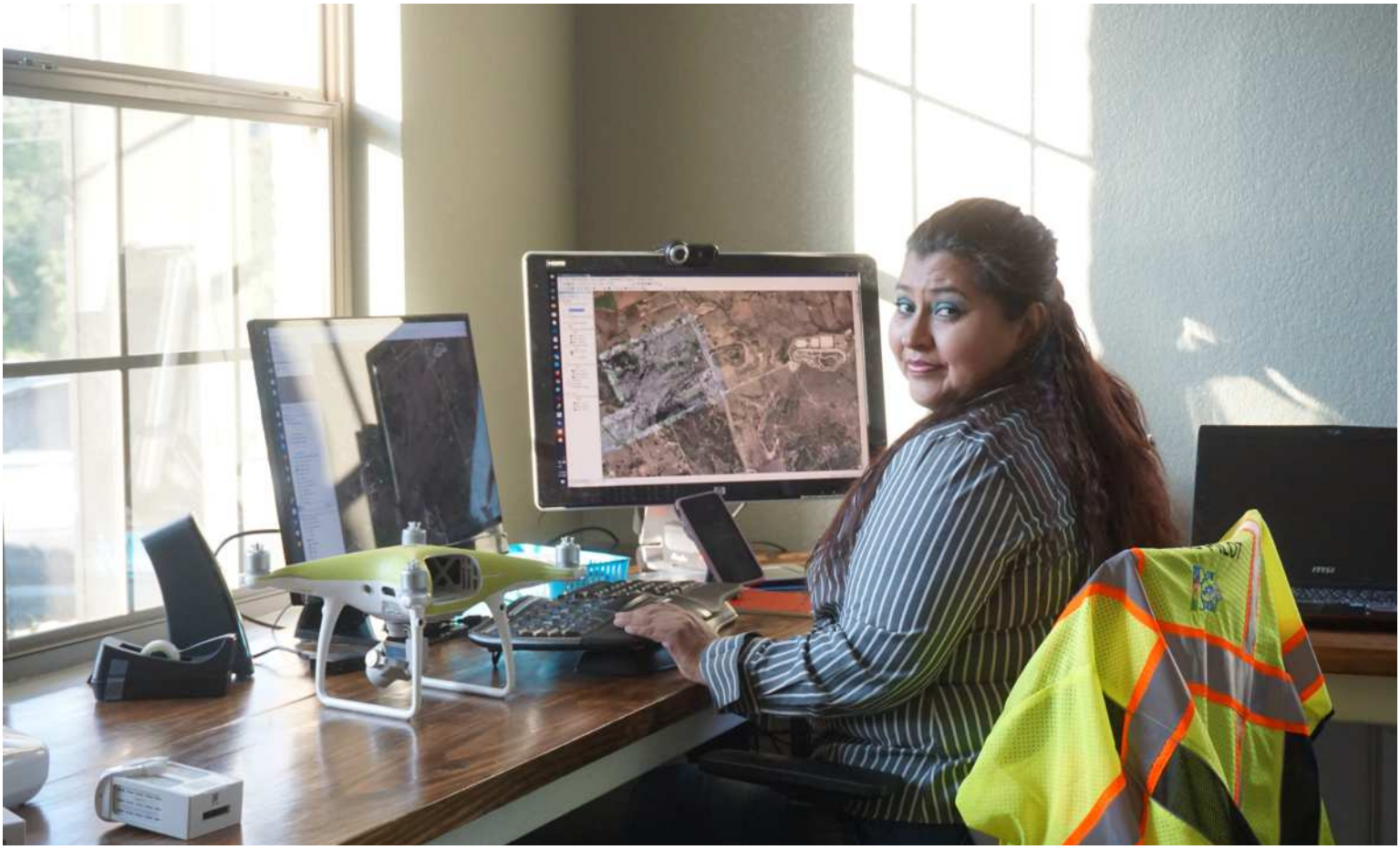
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BELINDA BETANCOURT DOW:

IT'S HARD, BUT DON'T GIVE UP. IT MAY FEEL THAT IT IS TAKING FOR EVER, BUT YOU WILL GET THERE, AND WHEN YOU DO. IT WILL BE THE GREATEST FEELING EVER.

”

LinkedIn



WOMEN AND DRONES DISASTER TRAINING







The Center for Robot-Assisted Search and Rescue (CRASAR), the world leader in robotics for disasters, is partnering with Women and Drones for four days of drone pilot training. The purpose is to introduce female pilots to the missions, skills, and regulations applicable to different types of disasters and enable them to work with local agencies. The training will take place during the highly realistic Public Safety Interoperability Institute (Interop 22) exercise with Texas emergency management agencies, Texas National Guard, and other groups at Disaster City® and surrounding facilities.

The Interop 22 exercise focuses on high fidelity testing of new technology, especially wireless communications. Drones have become the biggest consumer/producer of bandwidth and thus important for FirstNet and other providers to understand their role in emergency response.

The training will be led by Dr. Robin Murphy, a founding member of CRASAR and one of the first women drone pilots.

The workshop will be held the week of May 2, 2022, in College Station, Texas.

For additional details including participant requirements and registration click here.

LEARN MORE



KIMBERLY PENN

THE WOMEN AND DRONES SMALL BUSINESS ACCELERATOR AND INCUBATOR INITIATIVE

Supporting Small Businesses in the UAS/UAM/AAM/VTOL industries

The world of aviation continues to adapt three years into the global pandemic. In the United States, Congress passed the Bipartisan Infrastructure Deal (Infrastructure Investment and Jobs Act) which is a once-in-a-generation investment in America's infrastructure. The Bipartisan Infrastructure Deal will rebuild America's bridges, roads, airports, rails, ports, and as a result Uncrewed Air Systems (UAS), Advanced Air Mobility (AAM), and Smart Cities opportunities are experiencing explosive growth. Business owners seeking both growth opportunities and strategies will thrive in this environment.

As Chief Strategist for Women and Drones, I invite you to learn more about the opportunity to explore our incubator and accelerator to better position your organization. Ready to take your idea to a full fledge business? Seeking a Cofounder? Or Small Business Administration (SBA) funding? Ready to scale in multiple geographical locations? Our programs will include business plan building and updating, pitch competitions, mentoring, supplier diversity, curriculum, leadership development, funding opportunity education, Find Your Co-Founder matchmaking, networking (virtual and in-person) and more.

Sign up or inquiry about our programs via the included link and we will schedule a 15-minute exploration session with me – Kimberly Penn, Chief Strategist of Women and Drones and President of Professor Drones.







Accelerators grow an existing company by focusing on scaling a business. Whereas an incubator focuses on disruptive ideas with the hope of building out an innovative business model and company. Women and Drones in collaboration with Professor Drones, LLC. is positioned to launch both programs.

Key aspects of accelerator and incubator will include business plan building and updating, pitch competitions, mentoring, supplier diversity, curriculum, leadership development, funding opportunity education, Find Your Co-Founder matchmaking, networking (virtual and in-person) and more.

INQUIRE TODAY

TRAILBLAZERS, INNOVATORS, MENTORS AND BUSINESS LEADERS

My Women to Watch Global Awards Experience

By Erica Cooley



LORI DEMATTEIS





HUY TRAN

Women and Drones 5th Annual Women to Watch Global Awards 2021 was an incredible event of connection and recognition for the inspiring and innovative work of trailblazing women in the UAS industry. This year's award ceremony took place at CES in Las Vegas in January. This venue was an amazing opportunity for the Women and Drones community to not only gather in-person with each other but with many other professionals in emerging technology fields. The nominees for this year's awards were groundbreaking leaders in the drone industry. The ceremony was commenced by keynotes from Lori DeMatteis, VP of Global Sales, Marketing & Customer Success at Iris Automation and Huy Tran, Director of Aeronautics at NASA Ames Research Center. DeMatteis and Tran gave insightful personal experiences of their journey navigating the industry as a woman and how they have paved the way for my gender inclusivity through the leadership roles they hold. Both embody the essence of the Women and Drones motto, "If you can see me, you can be me."

Following the powerful testimonials from our keynote speakers, we kicked off revealing the honorees for the 2021 Women to Watch Global Awards. Each of the individual awards are designed to acknowledge and inspire women who are driving change and leading the drone industry closer to gender parity. This year's individual awards categories were leadership, entrepreneurship, education, public safety/service. Each award was sponsored by an organization who is revolutionizing and supporting gender inclusivity and innovation in these respective categories in the drone industry. All the nominees for the 2021 Women to Watch Global Awards were thought leaders who are revolutionizing the way drones are being used in communities across the globe. This gave our distinguished panel of judges the difficult job of selecting just one honoree for each of the four categories.

The 2021 Sabrewing Aircraft Leadership Award recognized an individual woman who demonstrates an exceptional ability to motivate people or groups to achieve a common goal. Sabrewing Aircraft Company (SACO)is a manufacturer of unmanned heavy-lift commercial cargo air vehicles headquartered in Camarillo, California, USA. SACO is creating innovative technologies and products that will help grow and transform the way the world ships air-cargo.

Karen DiMeo was selected as the honoree of the 2021 Sabrewing Aircraft Leadership Award. Karen DiMeo is CEO at AERODiMEO. Karen DiMeo is an Innovative leader focused on unmanned and advanced emerging technologies in the commercial airspace ecosystem. Her leadership at AERODiMEO and in the drone industry in general is motivating and assisting growth for women in this industry.



"If you're passionate about progressing in the industry, whether it be changes in drone rules, or the number of women in the room-use your voice and never let anyone shut the door on you." - Karen DiMeo



"I am looking forward to the days where we can fly in a safe airspace with autonomous operations to provide professional service and consumer based conveniences and create more jobs and opportunities." -Bronwyn Morgan

The 2021 Iris Automation Entrepreneurship Award recognized an individual woman innovator who has significantly impacted the UAS industry and possesses outstanding business acumen and innovative practices. Iris Automation is a safety avionics technology company pioneering Detect-and-Avoid systems and aviation policy services that enable customers to build scalable Beyond Visual Line of Sight (BVLOS) operations for commercial drones.

Bronwyn Morgan, CEO of Xeo Air and Airversity was selected as the honoree for the 2021 Iris Automation Entrepreneurship Award. As an inspirational entrepreneur herself, Bronwyn Morgan is pioneering in the UAS industry through her exceptional skills and practices as a business woman and innovator.

The 2021 Skydio Public Safety/Service Award recognized an individual woman who serves the public in any capacity and epitomizes community involvement or betterment service-oriented activities indicating commitment and sacrifice. Skydio is the leading U.S drone manufacturer and world leader in autonomous flight. Skydio leverages breakthrough AI to create the world's most intelligent flying machines for use by consumer, enterprise, and government customers.

Madison Jeffery, Flight Operations Manager of Swoop Aero was selected as the honoree for the 2021 Skydio Public Safety/Service Award. Madison Jeffery uses her vast experience and expertise in the drone industry to lead Swoop Aero's network expansion throughout Malawi, including onboarding new staff, engaging stakeholders and opening of over 200 sites throughout the country. Her work with Swoop Aero to use UAS technology to deliver lifesaving supplies to some of the most remote areas in the world truly embodies the core values of the Skydio Public Safety/Service Award.



"Dream Big! Follow your passion, intuition and most of all your heart wherever it guides you. Tackle challenges head on as they're the best learning experiences. Show the male dominated industry that women have endless potential." - Madison Jeffery



"UAS/AAM is an exciting and quickly developing arena that is shaping our future airspace, including more equitable access to aviation, innovative solutions to local, regional and global challenges as well as workforce opportunities for everyone."
-April Lanotte

The 2021 Unmanned Safety Institute Education Award recognized an individual female teacher or instructor who actively engages students with drones, shares the value of drones within curriculum and develops drone program opportunities. Unmanned Safety Institute (USI) is the industry's most widely recognized leader in flight safety solutions for individuals, enterprises and organizations focused on integrating and operating UAS for civil or commercial purposes.

April Lanotte, NASA Aeronautics Research Mission Directorate, U.S. was selected as the 2021 Unmanned Safety Institute Education Award honoree. April Lanotte's integration of drones in educational programs and curriculums in her work with NASA as educator personifies the foundation of the Unmanned Safety Institute Education Award.

The 2021 Diversity Exemplar Award recognized a company that is best in class for creating a company culture where women can thrive. Airspace Link was selected as the 2021 Diversity Exemplar Award honoree. Airspace Link was co-founded by Michael Healander, Ana Healander, and Daniel Bradshaw in 2018 with a vision to create a world where the safe integration of drones fuels human progress, advancing social equity, the environment, and the economy. Today, Airspace Link's mission is to enable safe integration into the national airspace and into communities at scale through digital infrastructure, strategic partnerships, and thought leadership.



"We are beyond honored to receive this award. Our team is the biggest asset that we have, and we understand the value diverse perspectives can bring. We're proud that we've been able to attract and retain top and diverse talent. 60% of our leadership team members are women, well above the industry average, and we have incredible female team members on all teams in our organization. We're dedicated to continuing our commitment to maintaining a culture that enables women to thrive and are incredibly grateful for our wonderful team. Thank you so much to Women & Drones for recognizing us in this important area." - Michael Healander



"In our endeavors to unravel and test drive the many new drone use cases in the agricultural space, we have identified a humanitarian post disaster recovery system. We utilize UAVs to dispense treatment of products to both kill and prevent black mold after natural disasters in both Texas and Florida."

-Toni Drummond
CEO, Global Aerial Management Group

The 2021 Volatus Aerospace Innovation Team Award recognized a team, group, company or organization in the drone ecosystem that actively encourages and inspires women to disrupt and innovate within the UAS industry. Volatus Aerospace is a fully integrated drone industry leader, offering drone services, training and consultancy, equipment sales and service, and more.

Global Aerial Management Group was selected as the 2021 Volatus Aerospace Innovation Team Awards honoree. Global Aerial Management Group is a 100% women-owned and operated full service manned and unmanned aviation services company. They specialize in private jet chartering, UAS services for innovative solutions like dispensing, sanitizing and disinfecting agents to combat COVID 19 at arenas, stadiums, ad large areas, and dedication to education for today's youth to continue building public acceptance for the UAS industry.



"USOG was built on the premise of "Saving lives today with the technology of tomorrow". Although this is our tagline, we truly hope to save as many lives as possible using our advanced knowledge in technology, IOT, and edge computing relating to unmanned systems."

-Pharns Genece
CEO, Unmanned Systems Operations Group

The 2021FoxFury Team Spotlight Award recognized a global co-ed team, group, company, or organization in the drone ecosystem whose overall work contributes to the positive public perception of drone ("Drones For Good") while fostering a culture of female empowerment and inclusiveness where women are engages in key roles on the team and/or in leadership positions. FoxFury Lighting Solutions provides innovative solutions for all safety lighting needs from fire and rescue lighting to forensic and laser equipment to drone lighting.

Unmanned Systems Operations Group, Inc. (USOG), is an innovative systems integration and logistics solutions company. USOG has developed an industry disrupting delivery system necessary to advance the drone delivery sector. Their Multi-Package Delivery System (MPDS) is the first in the industry and allows drone delivery platforms to deliver 1, 2, or 3 packages at once, delivering them to the same location or 3 different locations at various delivery sites. The company has a diverse team that constantly strives to be a part of the local community and help with STEM awareness.

Each honoree was presented a $500 grant to help support and propel the important work each is doing in innovating in the drone industry. Women and Drones extends a special thanks to all our sponsors, honorees and nominees for participating in our 5th Annual Women to Watch Global Awards at CES.





Erica Cooley

Erica Cooley is an FAA-certified Part 107 Remote Pilot since 2017 with experience in automated flight planning & aerial photogrammetry using UAS technologies for construction and aerial cinematography. As the Content Marketing Manager at Aloft (formerly Kittyhawk), she's responsible for keeping the drone community current on how to leverage technology to fly with compliance and safety. Her passion for gender and diversity inclusion in the UAS industry is demonstrated as a proud member of Women and Drones & a brand ambassador for Women Who Drone. She is an FAA Safety Team Representative in the Seattle, WA area. Erica received her BA from the University of Puget Sound in Communication Studies.

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DRONE LAW WITH LORETTA



BLUE DRONES: WHAT'S IT ALL ABOUT?

BY LORETTA ALKALAY

If you're like the vast majority of commercial drone operators, your drones are either made in China or have critical components made there. And you likely haven't given much thought to where your drone was manufactured. Country of origin has not been a factor for most drone buyers, in part because US-made drones until very recently have not been competitive, either in terms of quality or price, or – most often - both quality and price. And quality and price have typically been the critical criteria for drone purchasers.

But increasingly, country of origin may well become a deciding factor in whether the drone you own can be used for certain jobs, especially for work for the military, government agencies and even at sensitive locations, like inspections of critical infrastructure. So, it's time to get up-to-speed on what blue drones are and whether the type of work you do or would like to do could be affected by a blue drone requirement now or in the future.

WHAT DOES BLUE DRONE MEAN?

In the military, blue connotes "friendly," as in a blue force being a friendly force. The term blue UAS or drone is being used to describe "friendly" drones, those that meet criteria established by the Department of Defense (DOD) that ensure compliance with the requirements of Section 848 of the National Defense Authorization Act for Fiscal Year 2020 and Executive Order 13981 on "Protecting the United States from Certain Unmanned Aircraft Systems." DOD's Defense Innovation Unit, responsible for vetting drones for DOD and US government use, has coined the term Blue UAS to denote drones that are "Section 848 compliant, validated as cyber-secure, safe to fly and available for government purchase and operation."

Here

It is important to note that what constitutes a "blue" drone may change as different entities – both governmental and private – look at the cybersecurity needs of their organizations. In the future, it is possible that the DOD definition will become the standard, outside the military and federal security agencies. But it is also possible that different government agencies, especially state or local ones, or commercial entities will have their own definition of a "blue" drone, one that meets their particular cybersecurity requirements.

WHY DOES THE GOVERNMENT WANT BLUE DRONES?

The federal government, particularly the Departments of Defense and Homeland Security, has been concerned for some time that the use of drones and drone components manufactured by China could affect national and economic security. Specifically, since drones can access, collect and maintain sensitive data – especially sensitive government data - the use of UAS and critical components manufactured and developed by China could allow this sensitive information to be accessed by or transferred to the Chinese government. The government has also been concerned that domestic production of drones and their critical components is crucial to national security and the economy. For these reasons, DOD and several other government agencies have banned the use of drones made in China in their operations.

WHAT ARE SECTION 848 OF THE NDAA AND E.O. 13981?

Section 848 codified DOD policy prohibiting the purchasing and use of Chinese drones. It prohibits the Secretary of Defense (with a few limited exceptions) from buying or operating any drone made in China. Here
In particular, the law prohibits DOD from operating or entering into or renewing a contract to purchase a drone that:

- is manufactured in China or by a Chinese company;
- uses flight controllers, radios, data transmission devices, cameras or gimbals manufactured in China or by a Chinese company;
- uses a ground control system or operating software developed in China or by a Chinese company; or
- uses network connectivity or data storage located in or administered by a Chinese company.

While Section 848 only applies to the Department of Defense, Executive Order 13981 applies to all federal government agencies:

> *It is the policy of the United States… to prevent the use of taxpayer dollars to procure UAS that present unacceptable risks and are manufactured by, or contain software or critical electronic components from, foreign adversaries, and to encourage the use of domestically produced UAS.*
>
> Here

Foreign adversaries are defined to include North Korea, Iran and Russia, in addition to China.

The Executive Order does not directly prohibit the federal government's use of Chinese drones but makes clear that federal agencies are to take steps to stop the use of Chinese drones and replace them with domestically manufactured drones or drones manufactured in countries friendly to the US.





LORETTA ALKALAY

Loretta Alkalay is an aviation attorney, specializing in issues related to compliance with federal aviation regulations, including drone rules. She was an attorney for the Federal Aviation Administration for over 30 years with more than 20 of those years as Regional Counsel in New York. Loretta is also an adjunct professor at Vaughn College of Aeronautics and Technology where she teaches drone laws, aviation safety and other courses. She has taught for Vaughn in joint degree programs with universities in Hyderabad, India and in Shanghai, China. Ms. Alkalay holds a B.A. from Cornell University and a J.D. from the NYU School of Law. She holds an FAA remote pilot certificate with sUAS rating. She is on the Board of the Professional Aviation Maintenance Association, the chair of the Scholarship Committee of the Aerospace Maintenance Council and an adviser to Woman Who Drone.



WHICH DRONES ARE CONSIDERED BLUE?

DOD has 5 drones on its approved list and is working to validate an additional 12 drones.

Here

The drones on its approved list are made to specific military requirements and are the only drones listed as federally vetted and approved on the GSA schedule. (The GSA Schedule is a simplified way for federal agencies to purchase supplies and services.)

You can follow DOD's blue initiative Here

WHAT DOES THIS MEAN FOR YOUR BUSINESS?

If your drone work involves photography and videography for commercial clients not involved in sensitive government or critical infrastructure activities, blue requirements are unlikely to affect you at this time or in the near future. However, if your work involves contracting or subcontracting for the federal government, especially the military or Homeland Security, blue requirements are most likely to be a condition of any contract.

For other drone work involving state and local agencies or critical infrastructure, it is likely that more and more “blue” or cybersecurity requirements will be added. Understanding how to meet those requirements will be critical to competing for those contracts.

WOMEN AND DRONES AFRICA:







Women And Drones Fireside Chats Live from South Africa with Kim and Louise

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DIVERSITY EQUITY INCLUSION

Women and other minority identity groups remain underrepresented in the uncrewed aircraft system (UAS) and advanced air mobility industry, particularly in leadership positions, according to research from a triad of women-owned businesses, Women and Drones, P3 Tech Consulting, and the Diversity Development Network of Canada (DDNC).

Data collected through the *Women and Drones-DDNC-P3 Tech 2021 UAS/AAM industry DEI survey* conducted between August 6 and September 17, 2021 , shows that when asked "Please indicate the percentage ranges of leadership positions among the following diverse groups you employ in your UAS/AAM or UAS/AAM related Business or Organization" the following results were noted:

1. The highest rankings of diverse groups of leadership positions representing under 20% of senior management positions within respondent organizations were the Asian Racial Category at 57.53% followed by Native American or Alaska Native Racial Category at 56.8% and Black or African Racial Category at 55.88%.
2. The highest rankings of diverse groups of leadership positions representing 21% to 50% of senior management positions within respondent organizations were the Female Gender at 31.51% followed by Hispanic, Latino, or Spanish Origin Ethnic at 31.38% and Native Hawaiian or Other Pacific Islander 29.72%
3. The highest rankings of diverse groups of leadership positions representing 71% to 85% of senior management positions within respondent organizations were the White Racial Category at 9.98% followed by LBTGQ+ Community at 8.37% and Female Gender at 8.23%.

Meanwhile, almost 75% of respondents said they also felt moderate to extreme concern about the lack of diversity, equity, and inclusion in the UAS/AAM industry in general.

More than 80% of respondents expressed concern, raging from moderate to extreme, about the lack of diversity, equity, and inclusion (DEI) in their own UAS/AAM or UAS/AAM-related Business or Oranization.

A slightly higher percentage (81%) expressed moderate to extreme interest in increasing DEI in their companies.

Rounding out the top ten industry takeaways from the survey, respondents also expressed beliefs that DEI is important to the success of UAS/AAM and UAS/AAM-related businesses, that a lack of DEI would result in financial impacts to businesses and that it is important for the industry to understand the value DEI brings to the table.

The data also indicated that the industry, as represented by respondents, desires effective DEI programs across a broad range of topics, skills, and human-relations type initiatives.

Almost all respondents expressed interest in participating in an UAS/AAM Advisory Committee to provide industry input towards DEI, skills & competencies development, programming and training to ensure industry relevance.

The Women and Drones-DDNC-P3 Tech 2021 UAS/AAM Industry DEI Survey was conducted as a self-selecting survey tool targeting a variety UAS and AAM businesses and sectors across the U.S. Approximately 1082 individuals responded to the survey during the six-week period it was open.

The Vertical Flight Society (VFS)m the world's only international technical society for engineers, scientists and others working to advance vertical flight technology, as part of a larger educational partnership with Women and Drones, sponsored more than twenty $50 gift cards, in support of a random draw made of every 50 responses received upon survey completion.



A summary of the survey findings can be accessed by downloading the complimentary report HERE. Additional data and findings from the survey will be released in the full market report which will be available for purchase through the Women and Drones website.

HTS Ag
High Tech Solutions for Agriculture

PARTNERS WITH HYLIO TO OFFER SPRAY DRONES

Submitted by
Adam Gittins General Manager of HTS Ag.



HARLAN, IA - Revolutionizing the face of agriculture, HTS Ag is excited to partner with Hylio, a Texas-based spray drone manufacturer, bringing the latest technology to producers across the Midwest.

"Much like we have experienced with helping to pioneer automation on planters in previous years, we believe this cutting-edge technology will once again change how farms operate." says Adam Gittins, General Manager of HTS Ag. "Drone technology continues to advance at a rapid pace, and we felt it is important to partner with a company that can deliver a best in class product built in the USA."

"HTS Ag's in-depth knowledge of midwestern agriculture combined with their industry-leading experience with drones made a perfect fit with Hylio." says Arthur Erickson, CEO and Co-founder at Hylio. "Many farmers aren't aware that this crop spraying drone technology is already here and capable of adding value to their farms today; we love working with partners like HTS Ag because they bridge that gap between us and the farmers/operators that could be benefiting from our tech"

About **HTS Ag**: HTS Ag provides High Tech Solutions for Agriculture. Since 1995 we've been serving customers in Iowa and surrounding states. Our passionate and knowledgeable team is focused on solving challenges and can create a customized technology solution for any sized farming operation to maximize our customers' return on investment by improving efficiency, reducing cost, improving yields, increasing margins, and improving environmental impact. As professional, trusted advisors we emphasize to growers the importance of collecting, storing, protecting, and analyzing data to glean information that can be used to make sound agronomic and business decisions.

About **Hylio**: Hylio creates autonomous, crop spraying drones that are easy to use and reliable. Our mission is to make farming easier and more successful for everyone. We are proudly American owned and operated; supporting our customers is our top priority. Using Hylio's proprietary software, operators are able to plan and assign targeted spray missions to the drones; the drones then execute these missions autonomously. By directly treating the problem areas, instead of taking a blanket approach, farmers both reduce costs while increasing yields. Aside from precision spraying, Hylio's drones are often cheaper, safer, and more accurate than traditional spraying methods for broadcast treatments; a fleet of Hylio AgroDrones can cover 500+ acres per day.

www.htsag.com

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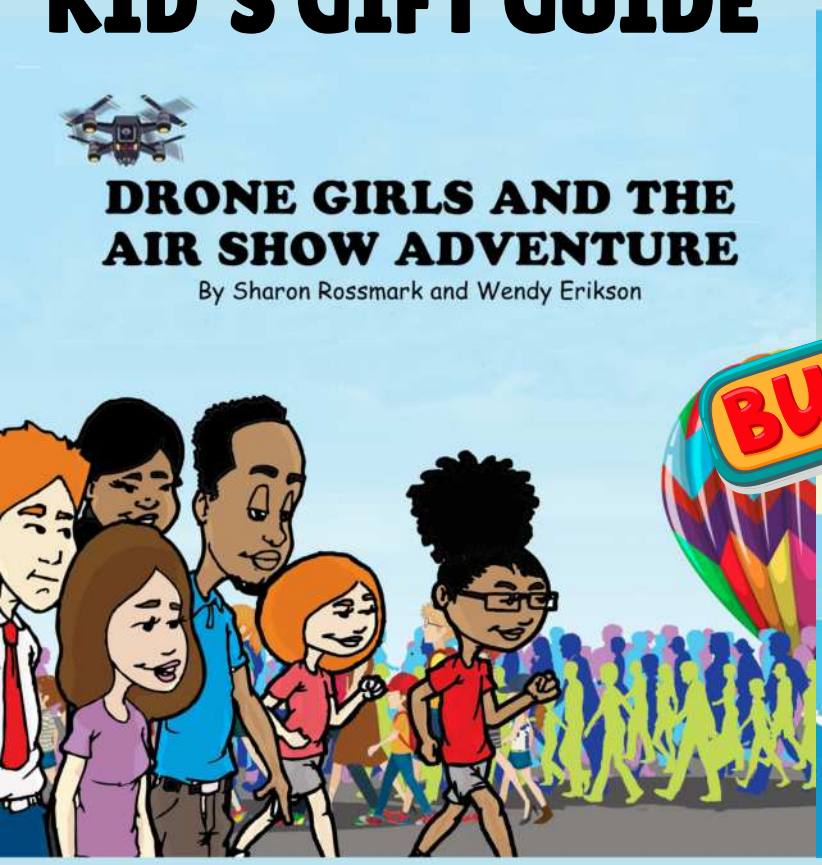


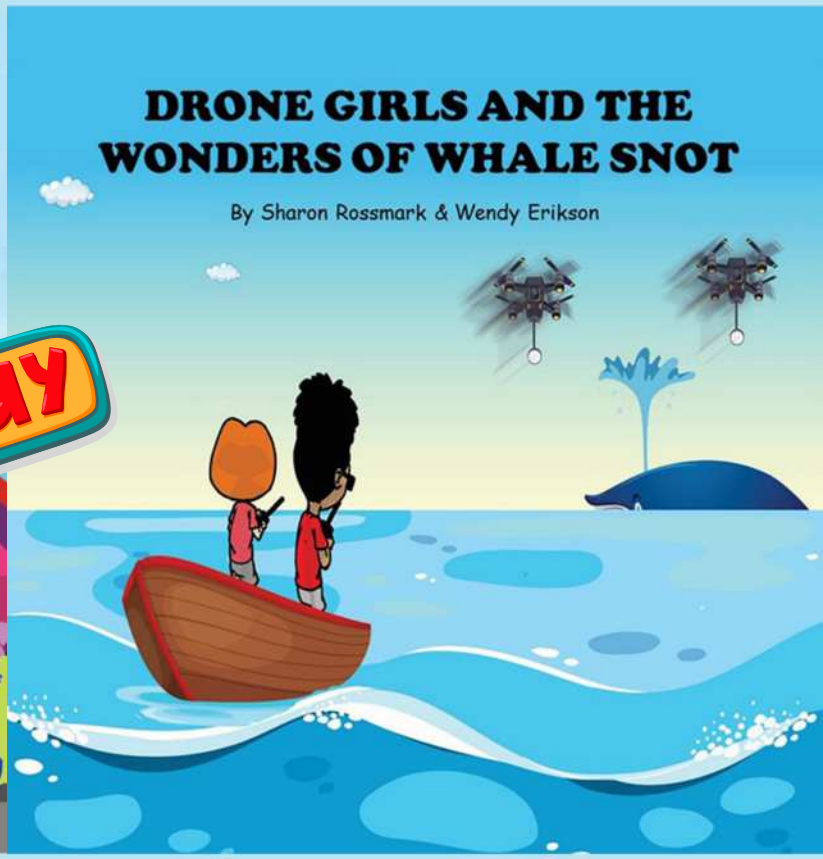
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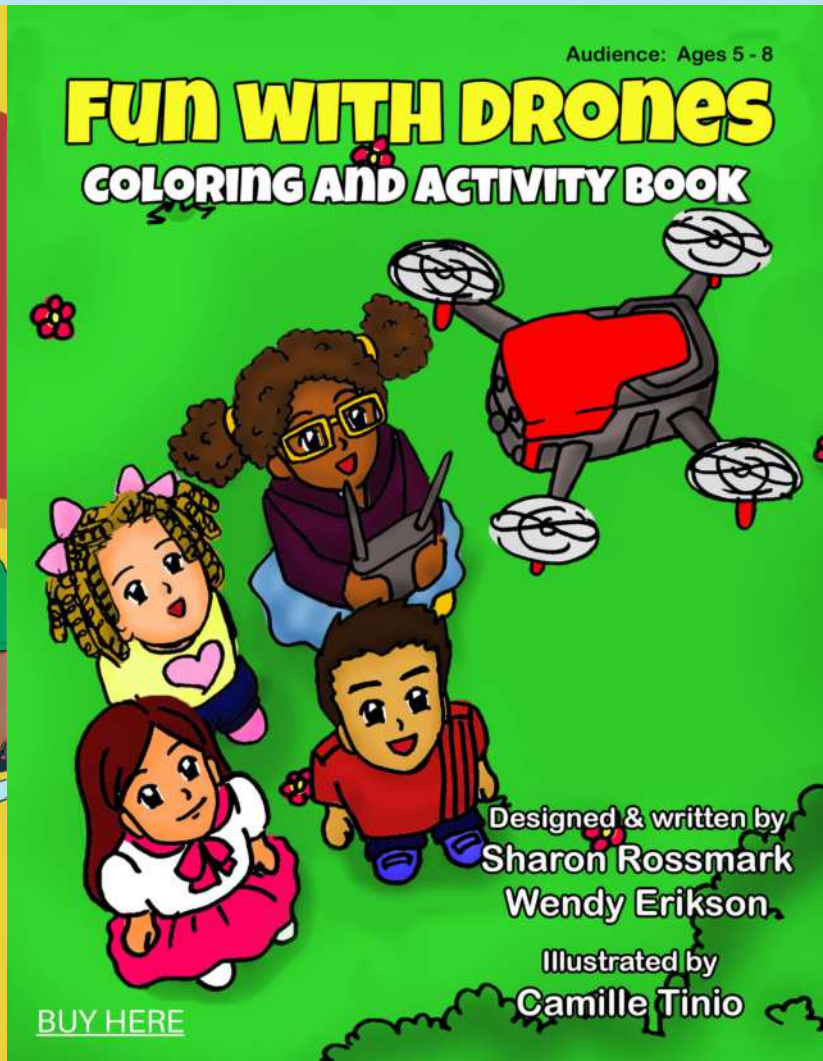
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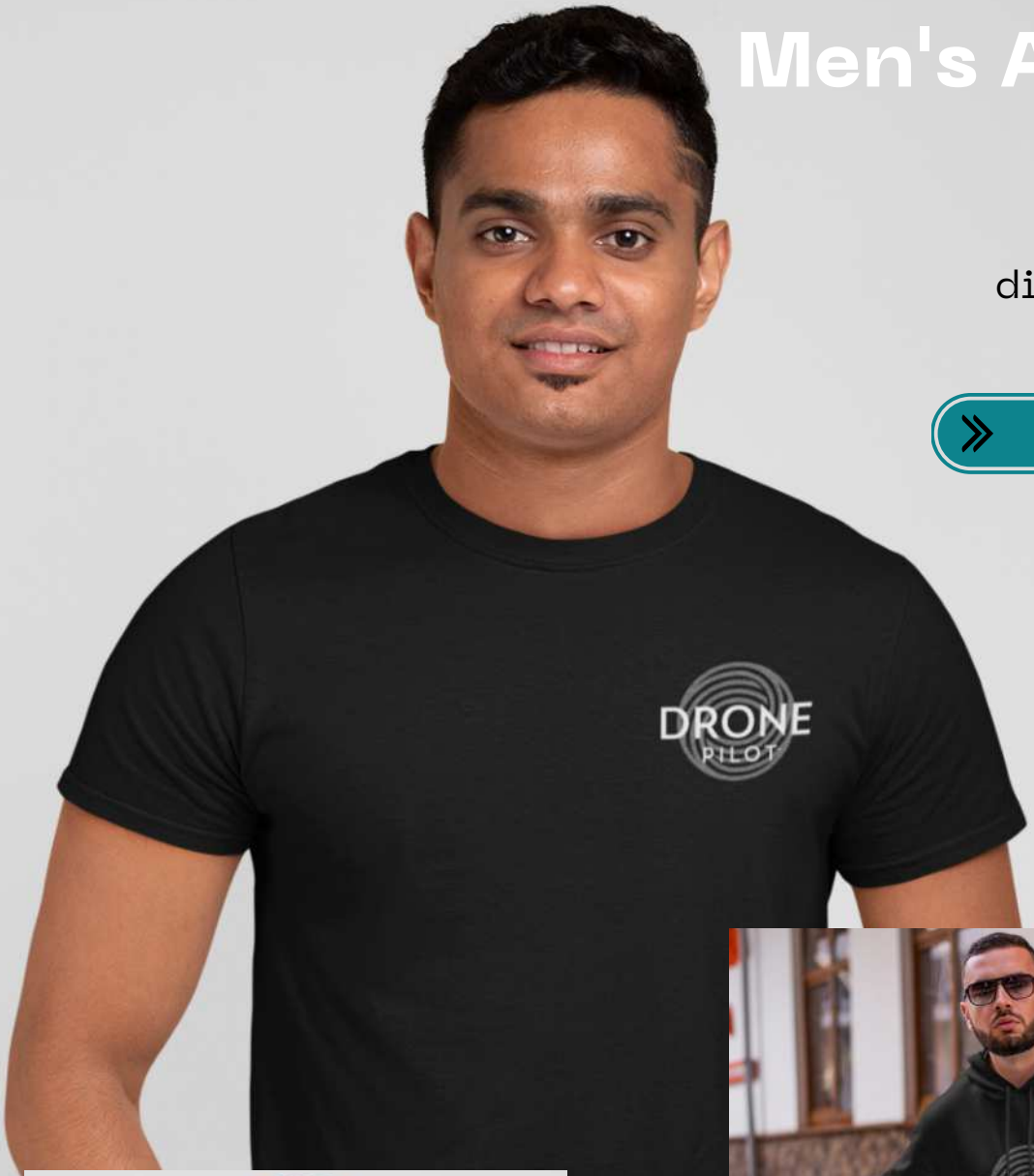


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Vertical Space 2022
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Spring Issue - February 1 for March
Summer Issue - June 1 for July
Fall Issue - October 1 for November

By Loretta Alkalay
Location: Miami City Hall, Miami, Florida
Equipment: DJI Mavic 3
Technique: Taking in the sites



