

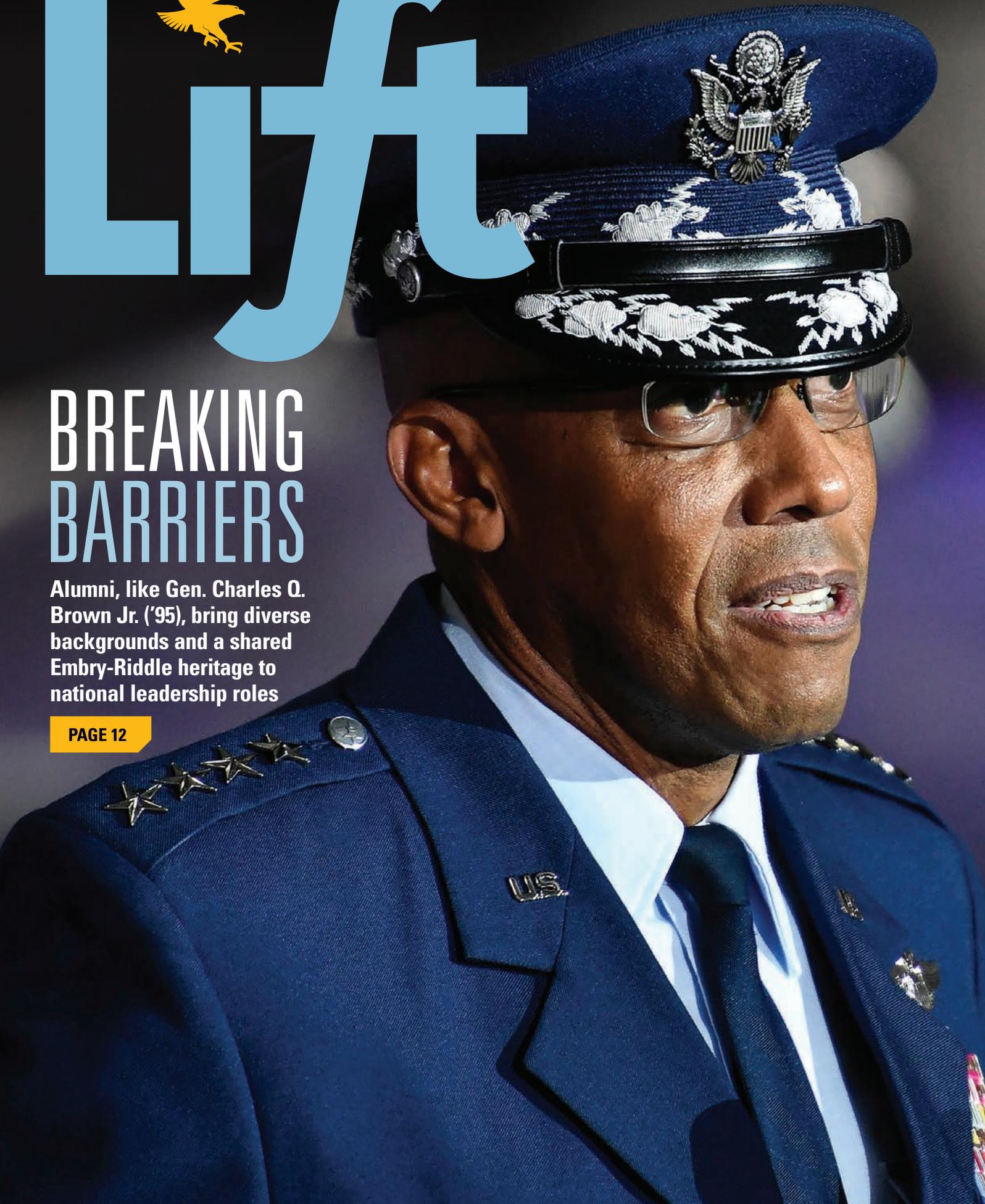


Lift

BREAKING BARRIERS

Alumni, like Gen. Charles O. Brown Jr. ('95), bring diverse backgrounds and a shared Embry-Riddle heritage to national leadership roles

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FROM THE PRESIDENT

“When will you see us?”

That was the theme of a silent protest near the Daytona Beach Campus after the killing of George Floyd. It is a fair question, and it deserves an answer — from institutions and communities, and from each of us as individuals.

To see the value of every person requires a willingness to take a hard look at yourself. You then have to be willing to learn and change, which should be the core values of any university.

To honor George Floyd, our campuses joined in a virtual memorial. We followed this up with two “Your Voice Matters” Zoom meetings. Students, staff and faculty shared their thoughts, feelings and experiences. These were candid conversations, not speeches, and the emphasis was on listening to each other. Some personal stories were painful to hear. However, I felt encouraged by the trust and mutual respect that was consistent across almost four hours, which means we have a solid foundation to build on.

Embry-Riddle Aeronautical University has launched a search for a new senior adviser, a chief diversity and inclusion officer (CDIO). This new position extends our commitment to make aviation and aerospace more diverse and inclusive. We have taken steps in the right direction, including recruiting campaigns, scholarships, mentoring programs and awareness-raising channels and events. Our new CDIO will help us find new ways to recognize, attract, support and celebrate talent.

We have cause for celebration. This issue of *Lift* expresses our pride in alumni who are in the vanguard of aviation and aerospace leadership — including 1995 graduate Gen. Charles Q. Brown Jr., the first Black chief of staff of the U.S. Air Force, and 2005 graduate



JoAnne Bass, the first woman to serve as chief master sergeant of the U.S. Air Force. U.S. Army officer Valdeta Mehanja, a 2013 and 2017 graduate, completed her training to be a Black Hawk helicopter pilot. Featured previously in *Lift*, veteran Reamonn Soto, a 2017 graduate, developed his startup as a student; he is now a CEO and tenant in our Research Park in Daytona Beach, where he incubated a successful business. The Research Park to date has generated more than \$90 million in economic impact in Florida and created 500 jobs.

As the world’s leading aviation educator, we support an industry critical to our country’s economy and security. We owe this industry the best minds and graduates who are prepared to contribute on day one. New leaders will emerge from an enriching environment where everyone can succeed without compromising identity, values or culture. They will be Eagles. Rising to this challenge uplifts us all.

Sincerely,
P. Barry Butler

P. Barry Butler, Ph.D.
President
Embry-Riddle Aeronautical University



An online resource to help you stay Eagle Strong during the coronavirus pandemic.



Volume 16, No. 2

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Alumni bring diverse backgrounds and a shared Embry-Riddle heritage to national leadership roles



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lift.erau.edu

TOP LEFT: BRYON MALIK; MIDDLE: U.S. AIR FORCE/ANDY MORATAYA; TOP RIGHT: DREW ENDICOTT; BOTTOM RIGHT: DAVID MASSEY

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ON THE COVER: Alumnus Gen. Charles Q. Brown Jr. ('95) was sworn in as U.S. Air Force chief of staff in August. Photo by U.S. Air Force/Eric Dietrich. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

ALTIMETER: HIGH POINTS AT EMBRY-RIDDLE

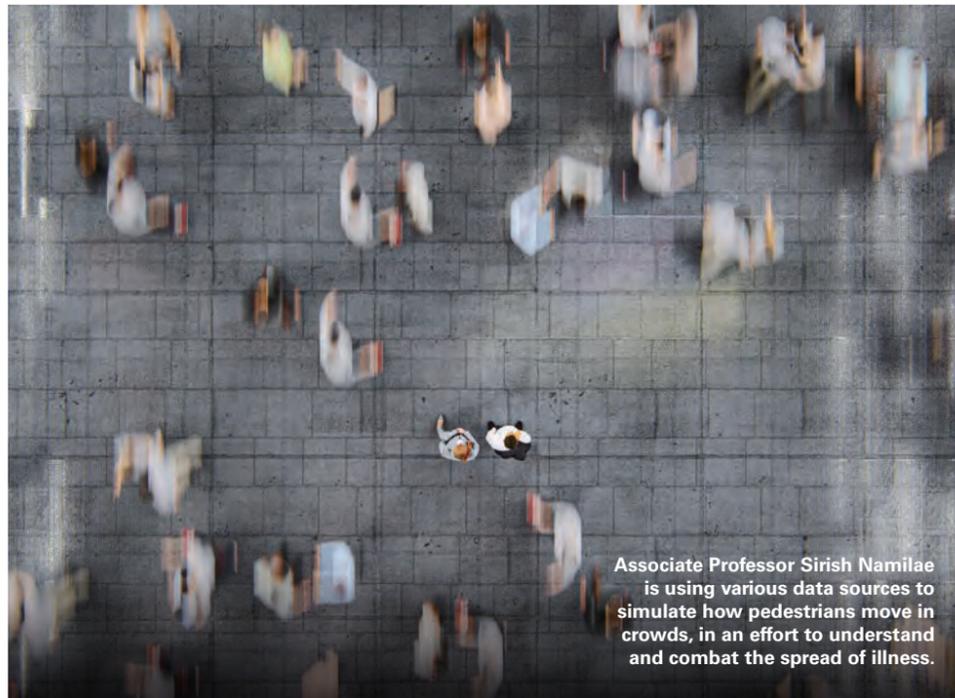
The Mori Hosseini Student Union at Embry-Riddle's Daytona Beach Campus won the **Architizer Popular Choice Award** in Architecture+Engineering.

The Federal Aviation Administration selected Embry-Riddle to participate in the **Unmanned Aircraft Systems Collegiate Training Initiative**.

The **Daytona Beach Campus women's basketball team** was named to the Women's Basketball Coaches Association Academic Top 25. The squad compiled a 3.671 cumulative GPA in 2019-20.

The **Prescott Campus** was named **No. 1 Undergraduate Aerospace/Aeronautical/Astronautical Engineering program** for non-doctorate-degree-awarding institutions for the fourth consecutive year by *U.S. News & World Report's 2021 Best Colleges* guidebook.

Assistant Professor of Physics and Astronomy L. Matthew Haffner co-authored a report on the first-ever measurement of **Fermi bubbles** in the visible light spectrum.



Associate Professor Sirish Namilae is using various data sources to simulate how pedestrians move in crowds, in an effort to understand and combat the spread of illness.

A Mathematical Solution

NSF grants fund pedestrian movement, disease-spread modeling to fight COVID-19

How people move through a given space may offer clues to how infectious diseases, like COVID-19, spread. Sirish Namilae, an associate professor of aerospace engineering at Embry-Riddle, is refining research he conducted on pedestrian movement — amplifying it with new data and disease-spread modeling — to help develop social distancing strategies as the world confronts the COVID-19 pandemic.

"We want to get an aggregate idea of how people are moving," Namilae says. "For this COVID problem, the research is even more relevant."

Namilae started researching pedestrian movement during the 2014 Ebola epidemic in Africa. Last year he was awarded a \$600,000 National Science Foundation (NSF) grant to develop a cyberinfrastructure for this problem. He was recently awarded another \$200,000 NSF RAPID grant, to incorporate new streams of data — from video footage from worldwide public-domain webcams, as well as from cellphone location systems — into pedestrian dynamics modeling. The mathematical models of pedestrian movement are based on the movement of particles, such as molecules, and were originally developed in materials science.

"All of this comes together so we can look at pedestrian data more comprehensively," Namilae says, adding that he will be working

with colleagues from the University of West Florida, Purdue University and Arizona State University, as well as with students from Embry-Riddle.

The result of their research will be a cyberinfrastructure, or software system, useful to such decision-makers as civil engineers, aviation workers and public health professionals as they work to design the most efficient social distancing guidelines. The modeling could then be used to inform policies designed to mitigate local outbreaks of infectious diseases.

"[The software] will help determine the best tactics, for example, in an airport," Namilae says. "How should the security queue be designed? How should a building be designed?"

Theme parks are another example of a venue where crowds mix intensely. Additions to traditional serpentine lines that reduce mixing, such as temporary walls between the lanes of customers, can reduce infection rates to 25% of what they would otherwise be, Namilae says. Single-file lines represent an even more drastic reduction.

By simulating many variations of different kinds of situations with pedestrian modeling and combining them with infection modeling, Namilae says it is possible to identify and quantify vulnerabilities, and determine crowd management strategies that may lead to lower infection rates. — *Michaela Jarvis*

Tapped to Serve

Four alumni named to FAA task force

Four Embry-Riddle alumni are part of a new 20-member task force charged with developing strategies and processes that will encourage high school students to explore and pursue aviation-related careers.

U.S. Transportation Secretary Elaine L. Chao announced on July 17 the formation of the Youth Access to American Jobs in Aviation Task Force (YIATF). The following Embry-Riddle Eagles are among those who were selected to serve: **Joanne "Jo" Damato ('04)**, vice president of educational strategy and workforce development for the National Business Aviation Association; **Kasey Herzberg ('06)**, director of engineering for Aircraft Data Fusion; **Nancy Shane Hocking ('07)**, manager of Pilot Gateway programs for JetBlue Airways; and **John Hornibrook ('19)**, vice president of flight operations for Horizon Air.

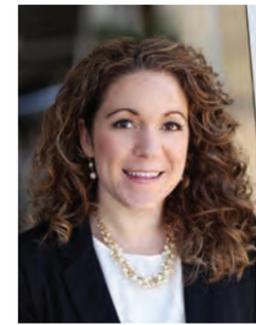
Herzberg, who earned a Master of Aeronautical Science (MAS) from Embry-Riddle, says she is honored to be a part of the task force that's creating a vision to help build the next generation of aviation leaders.

In addition to her role as director of engineering at Aircraft Data Fusion, she is executive director of the Challenger Learning Center of Minnesota, a nonprofit that inspires and engages youth in STEM education. "This is an exciting industry with so many incredible areas of opportunity beyond just the cockpit. It is imperative that we build a strategy to ensure youth have access to opportunities that expose and inspire them early on," Herzberg says.

Shane Hocking, who also earned an MAS from Embry-Riddle and holds a Ph.D. in Aerospace Sciences from the University of North Dakota, agrees. She's been involved in research on pilot sourcing, hiring and performance, and in her role at JetBlue, she oversees programs that help prospective pilots make their way to a JetBlue flight deck.

"I'm looking forward to working with this amazing group to expand aviation career pathways for every young person who has ever dreamed about taking to the skies," Shane Hocking says.

The YIATF will work to develop and provide recommendations to the Federal Aviation Administration to increase the number of high school students taking STEM courses leading to a career in aviation; encourage and support students



Clockwise, from top left: Joanne 'Jo' Damato ('04), Kasey Herzberg ('06), John Hornibrook ('19) and Nancy Shane Hocking ('07).

to pursue aviation programs of study; and identify strategies and opportunities for apprenticeships and workforce development programs that lead to employment.

Damato, a certified aviation manager with an MAS from Embry-Riddle, says she was that "15-year-old high schooler" who was inspired to pursue a career in aviation, but her family, teachers and guidance counselors lacked the resources and information to help her start the journey. "I want to pay it forward," she says, "to make the path into the industry clearer, especially for underrepresented groups and individuals."

— *Sara Withrow*

Embry-Riddle's Economic Impact in Florida, Arizona Surpasses \$2.3 Billion

The overall economic impact of Embry-Riddle in Florida and Arizona now surpasses \$2.3 billion — up 44% since 2016, the independent Washington Economics Group (WEG) reported in August.

Embry-Riddle further supports nearly 18,000 jobs in Florida and Arizona — up from just under 14,000 in 2016, making the university "a leading creator of high-wage employment in both state economies," according to the WEG report.

Additionally, it found that the earning and spending power of Embry-Riddle's alumni in Florida and Arizona generated \$900 million and \$86 million, respectively, in total economic activity this year.

Embry-Riddle's Research Park is also an economic driver. The Research Park, which opened on the Daytona Beach Campus in 2017, has generated more than \$90 million in economic impact in Florida and directly or indirectly created 500 jobs, many of which are high-wage. — *Ginger Pinholster*

ALTIMETER (CONTINUED)

The Embry-Riddle chapter of the **College Panhellenic Association** (Prescott, Arizona) received the **Innovation in Leadership award** from the international organization.

Arizona Business Magazine named **Prescott Campus Chancellor Anette M. Karlsson** one of the Most Influential Women in Arizona Business for 2020.

Daytona Beach Campus Women's Golf Head Coach Maria Lopez ('12) was named the 2020 LPGA Teaching and Club Professional (T&CP) Coach of the Year. This is the second time she's been honored with this award.

FEEDBACK

FROM THE EDITOR

I'm excited to announce that the inaugural cohort of the all-volunteer Eagle Writers Corps (EWC) is already hard at work.

Two of our newest Eagle writers make their debuts in this issue: Tristyn Bemis ('20) and Kim Sheeter. For more information about the EWC, visit alumni.erau.edu/ewc.



A big thanks to those who completed the 2020 Alumni Attitude Survey, distributed via email from December to February. Nearly 3,000 of you took the time to share your opinions with us. Among the takeaways: 65% said they made a "Great decision" to attend Embry-Riddle; 58% said their experience as a student was "Excellent"; and 24% said their experience as an alumnus was "Excellent." I'm happy to report that 24% also said they would welcome more printed materials from their alma mater (like *Lift*). See more survey results: alumni.erau.edu/2020survey.

There's no need to wait for the next survey. Let us know what you think: liftmag@erau.edu. — SARA WITHROW, EDITOR

In Memoriam

I was sorry to read in the spring 2020 edition about the passing of my classmate Joe Hajcak. Godspeed, Joe. Joe was the pilot who gave my wife, Marilyn, and me our first, and only, private flight aboard the Goodyear Blimp N1A from Watson Island in Miami on Nov. 20, 1975. What a treat it was to leisurely cruise up and down Miami Beach at 37 mph (not knots) for an hour! He even let me have some 'stick' time.

Stephen E. Goldhammer ('73)
B.S. Aeronautical Science

AHP Response

[In response to W. Emory Chronister, spring 2020: Feedback] AHP was a professional aviation fraternity, Alpha Eta Rho. I was a member in 1978-79. It allowed membership of both men and women. As a woman, it

was one of the few clubs I could join at the time. We pledged and had an initiation ceremony, just like other fraternities, but we didn't have any 'craziness' going on.

Gail Tworek Martin ('79)
B.S. Aeronautical Studies

Epsilon Rho Chapter of Alpha Eta Rho

While the student chapter is inactive at this time, we have a strong alumni organization with over 700 brothers and sisters. I was chapter president starting in Miami in 1964. I am anxious to meet any members from the founding of the chapter in 1960.

Richard I. Thompson ('66, '82)
B.S. Aeronautical Engineering
Master of Aeronautical Science



Chicken Coop Memories

Seeing the picture of the chicken coop in *Lift* [spring 2020: *Wings of Legacy*] brought back an old memory. I went to Embry-Riddle in 1955, and our dorm room was in the chicken coop, as was all of our ground school classes. We rode a van every morning to Tamiami Airport for flight training.

I attended Embry-Riddle for about six months and received my commercial. I got a job in Richmond, Virginia, immediately upon graduation, flying charters and power line patrol before I was hired to fly copilot on a twin Beech for a frozen food corporation in New Jersey. In July of 1956, I was hired by Capital Airlines, which merged with United five years later. I retired with just under 38 years of service.

Tom Bailey ('55)
Commercial Flight Certificate



Correction

The caption on this photo [spring 2020: *Global*, p. 29] should have read: Codou Mbow, co-founder of the Senegalese Alternative Learning Association, stands with members of the Saly Airshow leadership.

TALK TO US

We invite your feedback on *Lift* content or topics related to the university. Letters may be edited for style, length and clarity. Submission does not guarantee publication.

EMAIL: liftmag@erau.edu

IN OTHER WORDS



Keith Baskett ('92) always knew he wanted to be a pilot, a career path that wouldn't have been available to his father, even as a World War II veteran.

'You've Got to Be Twice as Good'

BY KEITH BASKETT ('92)

I grew up in the Washington, DC., area, and for as long as I can remember I wanted to fly.

My story could start with the 5-year-old version of me who, as a passenger one day on a Piedmont Airlines 727, thought to himself, "I want to do this when I grow up." Fast-forward to 2020, and that little kid is now a 767 captain for a major airline. Dream actualized – not that it was the least bit easy or guaranteed.

Growing up, and later as I was learning to fly, I heard the same loving admonition from my mother countless times: "You've got to be twice as good!" Although her advice may not have been as applicable to me as it was to the generation of African Americans that preceded me, I took it to heart and set off on my educational and career trajectory.

Once at Embry-Riddle, I was fortunate to have met John Paul Riddle himself. I learned to fly, took advantage of the career center's industry contacts to help land my first job, made lifelong friendships and presided over the Kappa Alpha Psi fraternity.

I had chosen a career path that, quite frankly, would not have been available to my father, who even as a World War II veteran would have faced obstacles and opposition in a system where policies of exclusion were taken for granted, and Black airline pilots were all but nonexistent. By the time I entered college in the 1980s, the commercial pilot population was still only 1% African American.

Today that number approaches 3%, while African Americans make up 13% of the U.S. population. We've come a long way, but we still have a ways to go.

An airplane itself certainly doesn't care about the race, color or creed of its pilots. And as skilled, highly trained professionals, our ability to perform at the highest levels is never a function of race, gender or ethnicity. However, while piloting skills may be the great equalizer, the opportunity to become a pilot has been historically limited.

The greatest strides in diversifying the cockpit have occurred only in the last few years. Regrettably, some of those gains may be reversed as the industry responds to current, worsening economic realities. Nevertheless, the cyclical nature of the industry has proven that *now* is the best time to prepare for the future. I was encouraged by the host of young African American students, as well as recent graduates, whom I met in my panel discussions at the Embry-Riddle campus earlier this year. It is incumbent on you to get in the game and help make a difference!

Meanwhile, I'm proud of the ways in which a once insular industry has evolved and continues to do so. This is an industry that must embrace positive change and realize that as both a profession and a nation, we benefit by tapping into the talents and experience of everyone, not just some. The demographic data will let you know if your inclusion efforts are truly successful. As alumni, we are both part of, and leaders of, this effort.

EDITOR'S NOTE: Baskett earned a B.S. in Aeronautical Science in 1992. He was a guest panelist at Embry-Riddle's 2020 Black Alumni Reunion in February. A captain for United Airlines, he resides in New York.

SEND US YOUR STORY *In Other Words* gives you the opportunity to share your industry-related or personal perspective with *Lift* readers. Email submissions/proposals to liftmag@erau.edu.

Final Flight

Remembering Riddle's last ride



BY KIM SHEETER



Capt. Brian Florence ('90)

Capt. Brian Florence ('90) has flown with United Airlines for nearly 30 years, but one of his most memorable flights was the last ride of John Paul Riddle. Florence was an Embry-Riddle student just shy of his 21st birthday when he flew to South Florida to scatter the ashes of Embry-Riddle's co-founder.

"I met [Riddle] on campus several times. I first spotted him grabbing a bite at the grill in University Center," Florence remembers. "He was an older gentleman in a ball cap and blazer. He laughed a lot and seemed very kind. When someone told me who he was, I walked over to shake his hand. He was very interested in talking with students."

When Riddle died in April 1989, the Daytona Beach Campus hosted a memorial. On display was his portrait, draped in school colors and a floral arrangement in the shape of an airplane. Members of the Embry-Riddle community read psalms, and a student offered a reading on the joy of flight from Richard Bach's novel *Jonathan Livingston Seagull*. Students shared memories, mentioning Riddle's visits to residence halls, where he joined in card games and Monopoly and enjoyed watching *Miami Vice* with students. At the end of the service, the recessional was "Wild Blue Yonder," originally the Army Air Corps' anthem. There was also a flyover by university aircraft.

Florence says he wasn't expecting to be part of Riddle's sea burial. His eyes were on graduation and his first job, as a primary flight instructor for the university. He was co-captain of the Eagles Flight Team, busy preparing for the National Intercollegiate Flying Association (NIFA) competition in Grand Forks, North Dakota. He had

recently completed his complex airplane endorsement when he got a call from his academic adviser and coach, Mike Wiggins ('76, '81), asking him to help pilot the mission. Wiggins was confident in his choice. "Brian was a standout student and the one who first came to mind when this honor arose," he remembers.

Florence had the skills but not the wardrobe. "I had to find a blazer, shirt and tie," he says. He flew one of the school's Cessna 172s from Daytona Beach to Miami International to meet Tandy Miles Riddle, who entrusted him with her father's ashes.

It was a nerve-wracking flight for a new pilot. Although Eastern Airlines was on strike at the time, Miami was an exceptionally busy airport. "We were on approach between two DC-10s with their higher approach speeds. For me to come in at 120 knots as we landed was a new experience. We taxied to Signature Aviation under and between the wings of some very large jets."

TOP: DAVID MASSEY

"It wasn't a lot of ceremony, but it was aviation in its purest form: A young pilot, in one of our planes from a pioneer's namesake university, set him free." — CAPT. BRIAN FLORENCE ('90)

In the plane were Wiggins, now professor and chair of the department of aeronautical science, and George Thune, university public relations director. The trio flew over Coral Gables out to sea, and at about 800 feet, they scattered the ashes. "I was nervous about the dispersal, but I held the plane steady while Dr. Wiggins dispersed Mr. Riddle's ashes," Florence remembers.

Florence says giving Riddle his final ride home is one of his most cherished memories. "It wasn't a lot of ceremony, but it was aviation in its purest form: A young pilot, in one of our planes from a pioneer's namesake university, set him free."

Like Riddle, Florence also committed to a life in aviation. Today, he flies Airbus A320 and 319 aircraft for United Airlines throughout North America and the Caribbean. His piloting experience extends to B727, DC-10 and B747-400 aircraft. He has been an instructor and facilitator for a command leadership program for United and has served as a consultant and participant in industry groups such as the Air Line Pilots Association. From 1997 to 2002, he was a regional and national judge for NIFA.

Florence is also involved in welcoming young talent to aviation as vice president of aviation community development for the LeRoy W. Homer Jr. Foundation. The foundation encourages disadvantaged youth to pursue careers as professional pilots and awards annual scholarships for private pilot flight training.

John Paul Riddle also has a resting place on land — with the Royal Air Force pilots who died while training at the No. 5 British Flying Training School operated by Embry-Riddle. A gravesite marker commemorating his life rests at the British Plot of Oak Ridge Cemetery in Arcadia, Florida. ✈️

GRAVESIDE: KIM SHEETER; RIDDLE: EMBRY-RIDDLE ARCHIVE

On April 19, 1989, Capt. Brian Florence ('90) recorded his flight from Daytona Beach to Miami International to spread John Paul Riddle's ashes out at sea.

DATE	AIRCRAFT MAKE MODEL	AIRCRAFT IDENT NUMBER	FROM	TO	Taxes		Landing	CATEGORY AND CLASS	HIGH PERFORM AIRPLANE	CONDITIONS OF FLIGHT	
					D	N				DAY	NIGHT
4/19	C-172	N1358R	DAYB	CONN	7	7		17		17	17
4/19	C-172	N1358R	DAYB	PATTERSON	5	8		11		11	
4/19	C-172	N1358R	DAYB	KY7	3	3		20		20	
4/19	C-172	N1358R	DAYB	SSS	1	1		15		15	14
4/19	C-172	N1358R	DAYB		1	1	3	14		14	13
4/19	C-172	N1358R	DAYB					18		18	9
4/19	C-172	N1358R	DAYB	MIAMI	2	1		40		40	

INSTRUCTION RECEIVED	TOTAL TIME		REMARKS
	FLIGHT	GROUND	
17	17		17:00-17:15: DAYB TO CONN
11	11		11:00-11:15: DAYB TO PATTERSON
20	20		20:00-20:15: DAYB TO KY7
15	15		15:00-15:15: DAYB TO SSS
14	14		14:00-14:15: DAYB TO MIAMI
18	18		18:00-18:15: DAYB TO MIAMI
40	40		40:00-40:15: DAYB TO MIAMI



RIDDLE'S MEMORIAL AMIDST BRITISH TRAINEES

A Union Jack ripples in the wind in a cemetery in Florida, standing sentry over 23 tombstones that carry the British Royal Air Force (RAF) crest. In two neat rows in the southwest corner of Oak Ridge Cemetery in Arcadia, Florida, is the British Plot.

The RAF cadets buried at Oak Ridge were learning to fly at Embry-Riddle's flight school at Carlstrom Field near Arcadia and at the No. 5 British Flying Training School (BFTS) at Riddle Field in Clewiston, Florida. Two died at Carlstrom Field, and the remainder died while based at the BFTS site.

These deaths spanned five years, 1941 to 1945, and not all were the result of flying accidents. Two airmen died of spinal meningitis shortly after they reported for training, and one died in a car crash. Airman Alfred Thomas Lloyd accidentally drowned in a hazing incident only hours after his first solo in 1942. Later that year, the first flying casualty buried at Oak Ridge was Roger Bensley Crosskey. The final deaths occurred just four days before V-E Day and the surrender of Germany; two airmen died when their A-6 training aircraft crashed in Belle Glade, Florida.

At the end of the war, the U.S. government asked the RAF cadets' next of kin if they wanted the remains returned to the United Kingdom. The families of those buried at Oak Ridge chose to allow their loved ones to remain in Arcadia.

A memorial marker for John Paul Riddle was added in 1989.

Kim Sheeter publishes the aviation/pop culture website *WilderBlue.com* and is planning to publish a biography of John Paul Riddle in 2021.

AVIATION IN THE SHADOW OF COVID-19



C. Jeffrey Knittel ('80),
CEO, Airbus Americas



Rebecca Posoli-Cilli ('90),
President and COO,
Freestream Aircraft Ltd.



Ray Jancso ('91),
Manager, FedEx Express
Crew Travel Services



John Hackworth ('09),
Founder, Professional Pilots of
Tomorrow and pilot for JetBlue

The global economy is still reeling from the impact of the coronavirus pandemic, which hit the United States in March 2020. The aviation industry has arguably experienced the greatest financial toll of any sector. The International Air Transport Association projected in June that worldwide, airlines will lose more than \$84 billion this year, and passenger traffic may not achieve pre-COVID-19 levels until 2024. We reached out to executives in a variety of aviation business sectors — from global aircraft manufacturers and charter services, to airline pilots and cargo operators — to get their take on this crisis. Here's what they had to say.

Q: How has the COVID-19 pandemic affected your business sector to date?

C. Jeffrey Knittel ('80): This is the worst downturn that this industry has faced. The pullback here has been much more dramatic than 9/11, and it's been global. No one has really been spared. Revenue passenger miles at one point were down 90%.

This is a high-fixed-cost business. If you have an 80% to 90% drop in passenger kilometers, your need for airplanes today drops, and the number of airplanes you're storing goes up. That is putting a lot of pressure on this industry.

The industry as a whole is pulling back — slowing things to maintain our balance sheets.

Rebecca Posoli-Cilli ('90): The COVID-19 pandemic had a positive impact on aircraft sales. The very few, desperate sellers dropped their prices early in March and April and then transactions stopped for 60 days. Inventory is now drying up, prices have stabilized and quality aircraft are going under contract rapidly. First-time buyers are predominantly in the \$4 million to \$7 million range.

Appraisals saw an upward trend due in part to margin calls, insurance changes (to no-fly) and general portfolio management. The charter business also had an 'adrenaline rush' as families and executives needed to travel home and shelter in place. By April, this activity stopped, with the exception of companies like VistaJet and XO, which neither furloughed employees nor ceased operations. Teterboro Airport itself resembled a ghost town.

The charter market has returned with a vengeance. Every operator should be enjoying this opportunity to gain new clients and prove their unique services.

John Hackworth ('09): Beyond the obvious anxiety of potentially losing one's job, a major source of frustration I've heard from ALPA (Air Line Pilots Association) member pilots across all airlines has been not knowing [what could happen]. This is a result of the carrier's management either not knowing themselves, not sharing or misinformation being spread through the rumor mill.

As a member of ALPA's Pilot Peer Support (PPS), I personally have seen an uptick in the number of calls from pilots across the network.

Our responsibilities as trained PPS volunteers are to act as an ear for those struggling with their circumstances and provide them the tools and resources to help themselves. It's important to acknowledge the growing mental and

“We've all been holding our breath since early March, and our faces are turning blue.”

— **JOHN HACKWORTH** ('09)

emotional struggle from facing an uncertain future.

We've all been holding our breath since early March, and our faces are turning blue.

Ray Jancso ('91): Early in the pandemic there was a drop in demand in several markets. There has since been a significant increase in demand for continued and expanded operations

to support movement of business-to-business and business-to-consumer goods, and with that, an above normal increase in the fiscal expense for materials and manpower to conduct those operations.

In addition to the expenses every business is encountering, such as personal protective equipment and sanitizing of facilities, we also have to meet the stringent, and sometimes frequently changing, COVID-19 entry requirements of many foreign governments. Those restrictions have required changes to routing, augmenting crew, conducting in-country COVID-19 testing and utilizing more costly government-designated hotel vendors.

So while FedEx Express is experiencing volumes usually not seen until the holiday peak season, it's taking a tremendous amount of additional effort and an unusually higher amount of expense to meet demand and maintain our high level of service.

Q: How do you see the coronavirus crisis disrupting aviation in the future?

Knittel: In terms of international flying, I think you'll see airlines operating a more fragmented system instead of operating hub to hub. As most airlines have learned over time, the yields are better when you're operating spoke to spoke, and passengers will pay for not having to connect into a hub.

Smaller passenger airplanes will also be in greater demand, such as the A220 and the A321. And as routes open up — or even as people want to fly transcontinental and transatlantic — the 321LR and XLR, which can accommodate passenger loads of 150 to 170, will be a great fit.

The A321XLR has only been out less than a year in terms of offer, and we've already sold 450 of them [as of summer 2020]. The market is there, and I think COVID will drive increased demand for that aircraft in the long run.

You're also going to see the industry coalesce around educating the public — about why it's safe to fly in an airplane. Holistically, the travel industry has to come together to solve the problem. Innovation and discipline from a safety perspective, the combination of those two things are powerful and will get us through this.

I think the industry will be different. I think when it bounces back it will be smaller — there's little doubt about that. But it has the potential to grow stronger.

Posoli-Cilli: Between first-time buyers coming into the market and current owners adding on to their fleet, aircraft sales remain strong with an immediate recovery. Of course a new owner can struggle with a steep learning curve of costs, operations, taxes and legal ramifications. The worst scenarios in the coming year will be partnerships where two friends decide to share an aircraft. Often within 18 months it becomes a disaster, and friends become foes.

All of our clients have decided to keep their aircraft, upgrade or add. Not one is shutting down their flight department. Simply put, anyone with access will choose to travel privately, leading to stronger sales in aircraft, charter and share programs.

Hackworth: Being involved with Professional Pilots of Tomorrow (PPOT), a volunteer mentorship nonprofit, we've seen a serious impact on our members and our leadership team. A great deal of our volunteers are pilots from regional, mainline and cargo operators, and many are facing losing their livelihoods, if they haven't already. I'm inspired by how many are continuing to offer their support to aspiring pilots regardless of their own unfortunate circumstances.

We believe mentorship organizations have a responsibility to be there, when the doors reopen, to support up-and-coming professionals.

Jancso: The unknown of how long the presence or spread of the COVID-19 virus will be a factor, makes it difficult to say what other challenges might come into play. Certainly, there's risk for another shutdown of key businesses and factories that would impact demand for air cargo services. Ever-changing entry and testing requirements in foreign countries will continue to complicate operations. But I'm confident that air cargo carriers like FedEx Express will rise to meet the challenge. 🐦

“Simply put, anyone with access will choose to travel privately, leading to stronger sales in aircraft, charter and share programs.”

— **REBECCA POSOLI-CILLI** ('90)

Compiled by Alan Marcos Pinto Cesar



From left, Brian Rieger ('11), Cyrus Jou ('11) and Manu Sharma ('11) are using machine learning and artificial intelligence to solve clients' problems at the startup Sharma and Rieger founded in 2018.

What's in a Label?

Three alumni look 'inside the box' to develop the latest machine learning innovations



BY LAUREN JOHNSTON

Manu Sharma ('11), Brian Rieger ('11) and Cyrus Jou ('11) met during their senior year capstone course at Embry-Riddle in Professor Snorri Gudmundsson's aircraft design class. "We were on three different teams, and we were all competing with each other on designing the best airplane," Sharma explains. "We were all very, very competitive and very excited to explore the boundaries of what was possible with the limited knowledge that we had."

They've continued to explore the boundaries of possibility, well beyond their days at Embry-Riddle, by partnering in several innovative ventures.

Their latest innovation, ironically enough, has them thinking "inside the box." Together they have developed a tool that uses machine learning to help data scientists find meaningful patterns in very large amounts of visual information.

BRYON MALIK

A Tool for Tomorrow

The tool, and the company they've formed, is called Labelbox. A web-based platform, Labelbox allows users to identify and label items portrayed in an image, so that these items can be parsed, via a proprietary machine learning algorithm, to extract meaningful insights. The platform also allows users to coordinate the activities of individual labelers, whether it's a handful or thousands.

The applications are endless, Rieger says. "When you look at all of the different sectors of the economy today, there's a lot of visual decision-making going on. Machine learning, and AI [artificial intelligence] more generally, is good at doing visual analysis; it's good at finding patterns in visual information." Companies across industries — from dentistry to agriculture, fashion to finance — are using machine learning to build the next generation of products and help make informed decisions, he says.

"This hasn't been done before," Rieger adds. "We haven't been able to code software algorithms and use logic directly to understand the complexity of the visual world and written world, but machine learning and AI can do that, and that's one of its hallmarks."

Seeds of Success

The idea that ultimately gave birth to Labelbox started forming in Sharma's mind when he worked for Planet Labs, a provider of global satellite imagery data.

"These people (at Planet Labs) began to build very small imaging satellites," Sharma says. "We were able to scan the Earth every single day. And my job was to build an analytics platform to extract insights from this imagery that we were collecting."

Sharma says Planet Labs was using AI to process its image data to answer questions, such as: What does deforestation look like on Earth? And, how much deforestation is happening in Brazil or in the United States?

"[But] if you want the AI to detect cars from satellite or drone imagery, or to detect where deforestation is happening, you need humans to tag lots of examples of cars and give it to this model, and the model will be trained to detect these cars

eventually." People have to look at and tag millions of images — label them — before feeding these tagged images through an algorithm, which then learns to identify what is shown in these images on its own, Sharma explains.

Recognizing the common need for labeled data and for an analytics platform to manage it was an epiphany for Sharma. Together with Rieger, he saw an opportunity to build a tool that could be replicated and customized to help people around the world.

A Burning Desire to Innovate

Spurred by their competitive time at Embry-Riddle, Sharma and Rieger always found ways to work together after graduation. First, they partnered to launch a commercial wind turbine company with support from an Embry-Riddle research grant. They simultaneously collaborated with professors to conduct AI research for flight controls and organized the university's first-ever TEDx event.

In 2012, the duo formed Infinity Aerospace. Inspired by their desire to empower student research, the company designed and manufactured the Ardulab, an open-source platform for space experiments aboard the International Space Station.

In the meantime, Jou was building a career in commercial aviation at Spirit Airlines.

In 2018, Sharma and Rieger founded Labelbox and hired Jou as the director of customer success.

The three aerospace engineer entrepreneurs acknowledge that their shared college experience created a lasting bond and a burning desire to innovate. "It has been the most transformational experience of all of our lives, meeting there [at Embry-Riddle] together," Sharma says.

And even as they change the landscape of machine learning and AI, Sharma says the three continue to be interested in aviation. "Our world is very much like Embry-Riddle, even today." 🌟

EDITOR'S NOTE: Sharma, Rieger and Jou expressed their gratitude to professors Snorri Gudmundsson, Glenn Greiner, Yongho Lee, Brian Butka, William Barott and Jianhua Liu for their mentorship and support.

FIGHTING COVID-19 WITH DATA



Multiple organizations that are working on vaccines, treatments and cures for the COVID-19 disease caused by the new coronavirus are using Labelbox as a tool in their arsenal.

Labelbox co-founder Brian Rieger ('11) explains, "The way that drugs work is they often go into the bloodstream, and they either bind or augment the nature of the thing they're trying to fight against, or boost another agent to help them fight the disease." Searching for these bindings and agents of action in the cells and bloodstream can be an intensely visual process. Biologists and other medical professionals use

microscopes to study pathology slides and blood samples, as well as examine the spectroscopy of the results.

When time is of the essence, Rieger says, "you can use augmentation and automation of visual processes with machine learning and AI (artificial intelligence) to accelerate and improve the outcomes of decision-making."

Whether AI has a long-term future in the development of cures and vaccines remains to be seen. For now, Rieger says the Labelbox team is proud to work with companies in the fight against COVID-19.



BREAKING BARRIERS

Alumni bring diverse backgrounds and a shared Embry-Riddle heritage to national leadership roles

**BY ALAN MARCOS PINTO CESAR
AND MELANIE STAWICKI AZAM**

Chief Master Sgt. of the Air Force JoAnne S. Bass ('05) is the first woman and the first Asian American to serve as the Air Force's highest-ranking enlisted leader.

U.S. AIR FORCE/ANDY MORATAYA. THE APPEARANCE OF U.S. DEPARTMENT OF DEFENSE (DOD) VISUAL INFORMATION DOES NOT IMPLY OR CONSTITUTE DOD ENDORSEMENT.



Air Force Chief of Staff Gen. Charles Q. Brown Jr. ('95) congratulates Chief Master Sgt. of the Air Force JoAnne S. Bass ('05) during the transfer of responsibility ceremony on Aug. 14, 2020.

U.S. AIR FORCE/ANDY MORATAYA: THE APPEARANCE OF U.S. DEPARTMENT OF DEFENSE (DOD) VISUAL INFORMATION DOES NOT IMPLY OR CONSTITUTE DOD ENDORSEMENT.

Embry-Riddle alumni have a penchant for shattering stereotypes — and the glass ceilings that often come with them. Eagles regularly break gender and ethnic barriers and achieve leadership positions, in spite of facing significant social and cultural challenges in the professional space.

This year, while people across the country raised their voices to protest social injustice against African Americans and other underrepresented populations, several alumni soared above the noise to claim hard-earned roles of national prominence.

Leading the U.S. Air and Space Forces

Perhaps no one soared higher than **Gen. Charles Q. Brown Jr. ('95)**, who made history on June 9, 2020, when the Senate unanimously confirmed his nomination as the 22nd chief of staff for the U.S. Air Force. Brown is the first African American to serve in this role — and the first to lead any U.S. Armed Force as its highest-ranking officer.

A command pilot who holds a Master of Aeronautical Science from Embry-Riddle, he credits his achievement in part to his ability to see challenges as opportunities, and to African American leaders across the Air Force and military who inspired him, "like the Tuskegee Airmen, Benjamin O. Davis Jr. and Chappie James."

Honorary Embry-Riddle alumna and **Secretary of the Air Force Barbara Barrett (HonDoc '06)** had the privilege of swearing Brown into his new post on Aug. 6.

In taking his oath of office, Brown attained something that would likely have been unimaginable for his grandfather, Robert E. Brown Jr., who served in an all-Black unit during World War II, and his father, Charles Brown, who grew up in segregated San Antonio, Texas. Today, only 8.8% of all military officers are Black, according to Pentagon statistics.

Prior to his recent appointment, Brown commanded the Pacific Air Forces and the air component of the U.S. Indo-Pacific Command. He admits he faced challenges in his career ascent.

"I felt pressure to perform error-free, especially for supervisors I perceived had expected less from me as an African American. I felt that as I rose through the

ranks, I often had to work twice as hard to prove their expectations and perceptions of African Americans were invalid, in order to pave the way for those behind me," he says.

He learned to walk an invisible tightrope between two worlds. "You learn to adapt to the majority while still providing your perspective as an African American, and not the perspective of all African Americans," Brown says.

Following the public outcry against the May 25, 2020, police killing of George Floyd, a Black resident of Minneapolis, the four-star general was prompted by his son to make a public statement.

Brown recalls, "He asked me, 'Dad, what's PACAF [Pacific Air Forces] saying?' which is code for, 'Dad, what are you saying?'"

Brown responded by posting a video (produced by PACAF) on social media. In it he stated: "I can't fix centuries of racism in our country ... [But] I'm thinking about how I can make improvements personally, professionally and institutionally, so that all airmen, both today and tomorrow, appreciate the value of diversity and can serve in an environment where they can reach their full potential."

Honoring this intention, one of Brown's first official duties as chief of staff was to appoint **JoAnne S. Bass ('05)** as the 19th chief master sergeant for the Air Force. CMSAF Bass now holds the distinction of being the first woman and the first Asian American to serve as the Air Force's highest-ranking enlisted leader.

"It is a moment that could not have taken place without the efforts of many women who have gone before me," said Bass, at her Aug. 14 transition ceremony. "Our Air Force today is on the right side of history ... we are focused on setting a foundation for all Americans to see themselves in this great institution."

Chosen from more than a dozen finalists, Bass, who holds a B.S. in Professional Aeronautics from Embry-Riddle, was promoted from command chief, Second Air Force, at Keesler Air Force Base, Mississippi. Her new role includes continuing work on improving resiliency, reducing suicide and improving diversity and racial equality in the Air Force.

"As we reflect on the past, we must also look forward to cultivating an environment filled with innovation, with collaboration, moving toward our future ... a future where we embrace true diversity and forge an inclusive culture where our airmen's talents, what they bring to the fight, are embedded deep in our roots," she said.

DID YOU KNOW?

- The Worldwide Campus is the most diverse Embry-Riddle campus. As of fall 2019, 35.8% of its undergraduate students and 32.2% of its graduate students were people of color.

“I’m thinking about how I can make improvements personally, professionally and institutionally, so that all airmen ... appreciate the value of diversity and can serve in an environment where they can reach their full potential.” — GEN. CHARLES Q. BROWN JR. ('95)

Secretary Barrett, who leads the U.S. Air and Space Forces, says she feels fortunate to have Brown and Bass on her executive team. “The department benefits from their leadership,” she says.

As a female leader in a male-dominated profession, Barrett is also known for breaking socio-cultural boundaries. Her achievements were hard fought.

After her dad died when she was 13, she went to work to support her five siblings, herself and her mother. “Whatever measure of success I achieved, it was born of necessity,” she says.

An Arizona native, Barrett has also been a cattle and bison rancher for close to three decades; plus, she’s an instrument-rated pilot, and trained and certified for space flight.

“I am fortunate to be from Arizona, where women have been in leadership roles for a very long time — where what you produce is what matters, as opposed to gender or race,” she says.

Former Supreme Court Justice Sandra Day O’Connor, whom Barrett worked for when Day O’Connor was an Arizona state senator, was one of her mentors and role models.

Barrett, who taught leadership as a Harvard Fellow at the Kennedy School of Government, says she has seen a lot of change over the decades, and there is much less resistance today to women in leadership positions.

“Leadership takes energy, a vision and determination to get things done,” she says.

“Leadership is in ample supply among women today around the world.”

Leveling the Field

Maj. Gen. Deanna Burt ('91), who served as director of operations and communications for the U.S. Space Force and is now commanding officer for the Combined Force Space Component Command (CFSCC) at Vandenberg Air Force Base, would agree.



Maj. Gen. Deanna Burt ('91) serves as commanding officer for the Combined Force Space Component Command.

When Burt commissioned into the Air Force out of Embry-Riddle’s ROTC Detachment 157, women weren’t allowed to be fighter pilots.

Burt, who earned a B.S. in Aeronautical Engineering from Embry-Riddle, chose the Air Force because of a scholarship. She expected to exit to the private sector after fulfilling her four-year obligation. But during those four years, her friend Jeannie Leavitt (née Flynn) became the first female fighter pilot.

“The passion and desire for flying that I saw in my female counterparts at Embry-Riddle ... now they had a chance and the door was open. I saw many go from T-38 or heavy pilots and cross over to fighter pilots after that,” Burt says.

But what made Burt fall in love with the Air Force and make her career there, was its system of meritocracy — basing promotions on a person’s performance, first and foremost. Later, when she became chair of the developmental team, she put the system into practice herself. When low-performing captains were identified, a team member would provide them with additional mentorship, she says.

This effort helps level the playing field, regardless of a person’s background, Burt says, which brings diversity into leadership — an important goal. “If all you see is a bunch of old white guys, you don’t see a future at the company. You’ve got to be willing to grow people to bring them all the way to the top. I have absolutely been a product of that.

“But it has to be a meritocracy. You can’t artificially put them in by quota, or your organization will struggle as well. Diversity takes time. It has to be persistent.”

Now, decades into what started as a four-and-done commitment, Burt is leading the CFSCC for the nation’s newest military branch — the Space Force — and she wants to make diversity a big part of its success.

“Without diversity, you struggle with new ideas. If you don’t have diversity in age, gender, ethnicities and experiences, you won’t get to a full picture of how best to change and make the Space Force as cutting-edge as it needs to be,” Burt says.

Paving the Way for Immigrants

U.S. Army 2nd Lt. Valdeta Mehanja ('13, '17) is helping to transform military policy and practices. In July, she received the prestigious American Immigration Council’s American Heritage Award for her efforts on behalf of immigrants.

“My accomplishments and contributions to America wouldn’t have been possible if I didn’t have people who helped me along the way,” says Mehanja of the award. “It was not easy to get here; it was a very long journey.”

At age 7, Mehanja and her family fled the war in Kosovo and lived as refugees in Germany until she was 16. When the war was over, they returned home to a destroyed house and a country in ruins. After working as a U.S. military contractor in Iraq and Afghanistan, Mehanja came to Daytona Beach, Florida, in 2010 to attend Embry-Riddle and pursue her dream of becoming a pilot.

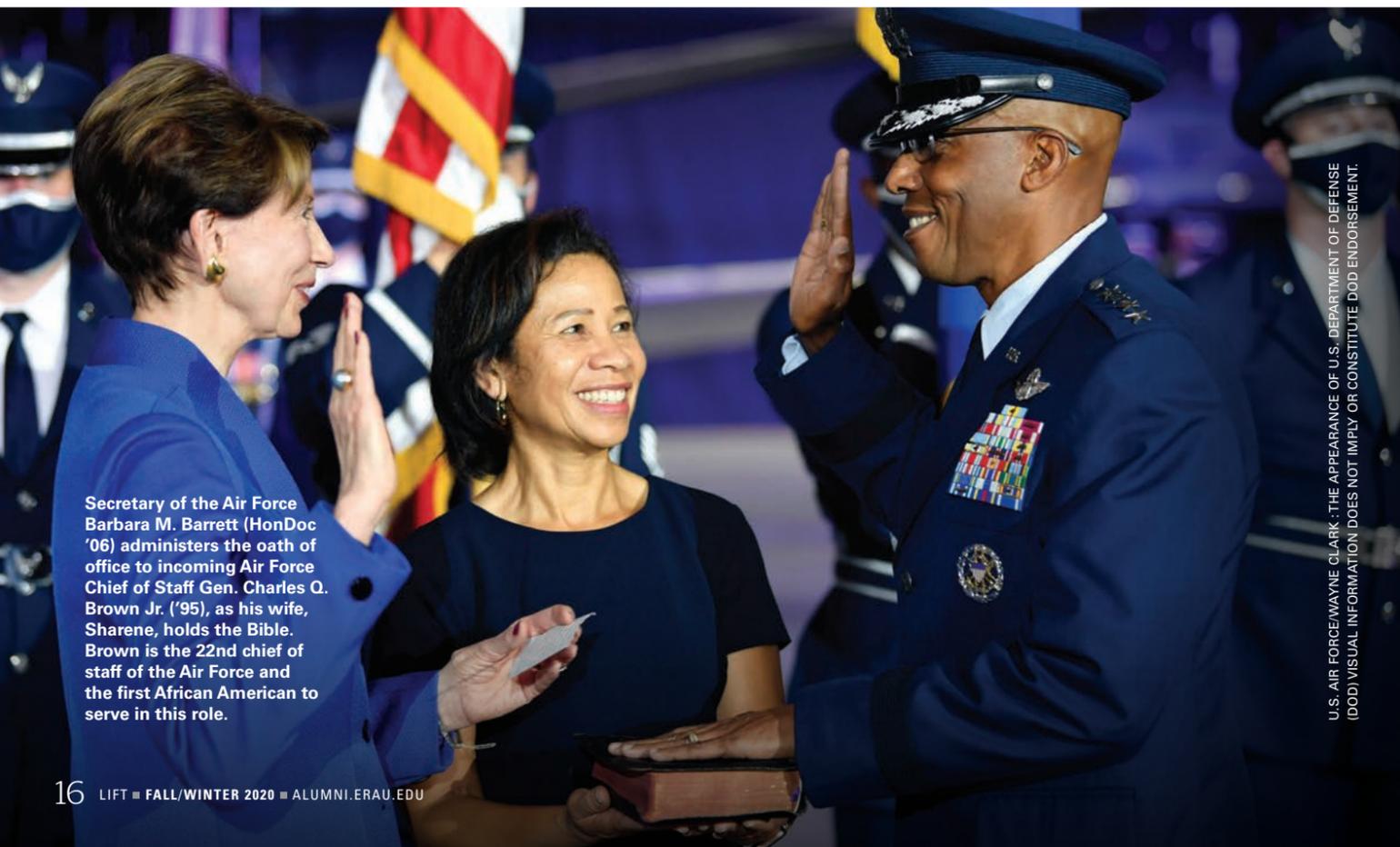
Six Embry-Riddle Alumnae Named to National Women in Aviation Advisory Board

The path to increasing the number of women working in the aviation industry starts with STEM education and providing young girls with role models who help them see the possibility of aviation as a career.

Six Embry-Riddle alumnae will be working to do just that as members of a newly formed Women in Aviation Advisory Board (WIAAB). Appointed to the board by U.S. Secretary of Transportation Elaine L. Chao, the alumnae include **Crystal L. Barrois ('04)**, **Dana Donati ('19)**, **Kathryn Fraser ('18)**, **Laura Benson Jones ('03)**, **Rebecca Lutte ('91)** and **Col. Martha Morris ('02)**.

The 30-member WIAAB will develop recommendations for the Federal Aviation Administration regarding education, training, mentorship, outreach and recruitment of women in the aviation industry.

A tenured associate professor at the University of Nebraska at Omaha Aviation Institute, Rebecca Lutte ('91) says there is a lot of work to be done. An aircraft owner/pilot and a nationally recognized scholar on women in the aviation workforce, Lutte says there are significant gaps in the number of women in aviation in most fields, but particularly in professional pilots (5% women) and maintenance technicians (2.4% women). “We need to take a hard look at the reasons for these gender gaps and develop new strategies that not only address these barriers, but also focus on the factors that draw women into aviation,” she says. Laura Benson Jones ('03), a certificated flight instructor and airline transport pilot, agrees. As chair of the board of Flight Club 502 — a nonprofit that uses aerospace lessons to inspire and develop life skills in youth — she is ready to make a difference. “We’d love to move the needle on increasing the number of girls pursuing careers in aerospace,” she says.



Secretary of the Air Force Barbara M. Barrett (HonDoc '06) administers the oath of office to incoming Air Force Chief of Staff Gen. Charles Q. Brown Jr. ('95), as his wife, Sharene, holds the Bible. Brown is the 22nd chief of staff of the Air Force and the first African American to serve in this role.

U.S. AIR FORCE/WAYNE CLARK: THE APPEARANCE OF U.S. DEPARTMENT OF DEFENSE (DOD) VISUAL INFORMATION DOES NOT IMPLY OR CONSTITUTE DOD ENDORSEMENT.



U.S. Army 2nd Lt. Valdeta Mehanja ('13, '17) received the American Immigration Council's American Heritage Award for her work on behalf of immigrants.

“Leadership takes energy, a vision and determination to get things done. Leadership is in ample supply among women today around the world.”

— SECRETARY OF THE AIR FORCE BARBARA BARRETT (HONDOC '06)

At Embry-Riddle, Mehanja earned a B.S. and an M.S. in Aeronautical Science, worked as a certified flight instructor and competed (and finished first) in the 2013 and 2014 Air Race Classic (collegiate division). She also placed third (2013) and second (2014) overall in the all-women's cross-country flight competition.

In 2015, she enlisted in the U.S. Army under the Military Accessions Vital to National Interest (MAVNI) program with the goal of becoming a Black Hawk helicopter pilot.

Despite becoming a naturalized citizen in 2016, Mehanja encountered career-limiting obstacles based on her foreign born status. She fought back and was ultimately allowed to join Officer Candidate School and become an Army aviation officer.

In September 2020, she completed her Black Hawk pilot training. She has since transitioned from active-duty service to the Alabama National Guard and aspires to work fulltime as an airline transport pilot.

“When I was a contractor, I always looked up to the military. I wanted to do what our guys did in Afghanistan,” Mehanja says. “I cannot imagine living anywhere else anymore, except the U.S. My heart really has always belonged in the U.S.”

Carving a Path

Growing up in Pakistan, Hina Kazmi's ('93) friends didn't understand her desire to be an aeronautical engineer. “My Pakistani friends thought I was crazy,” she says. “I was fortunate in terms of my parents: They raised us that we were going to have careers and an education, and carve our own path.”



Hina Kazmi ('93) serves on the leadership team at NASA's Stratospheric Observatory for Infrared Astronomy.

Being one of only a few female students at Embry-Riddle's Prescott Campus in the '80s didn't faze her. She was already accustomed to being the only woman in the room from her high school engineering classes.

Kazmi says that early in her career, her youthful naïveté clouded her vision regarding gender disparity. Looking back, she realizes she was often left out of the camaraderie that her male classmates had, especially in group projects, and she would get assigned less complicated tasks, rather than technical or analytical work, which was her true passion.

As her career was taking off, Kazmi attended a women's panel and was inspired by what she saw. “That was the first time I saw women in high positions at organizations like Boeing. You actually want to see diversity, female role models, or whatever role models you aspire to,” she says. “I was lucky to have good mentors along the way.”

Now that she's on the leadership team as a project manager at NASA's airborne telescope, the Stratospheric Observatory for Infrared Astronomy, Kazmi is taking the opportunity to help other women rise as well — not only by being a role model, but through direct action.

“I often find myself giving voice to early career females,” Kazmi says. “I seek out diversity in resumes and our hiring decisions. And also in who's going to be assigned a lead role in a task or project. I feel it's part of my responsibility, given my diverse background and the path that I was able to carve for my career in the aerospace industry with the help of such mentors and supporters.”

Changing the Paradigm

As Secretary of the Air Force, Barbara Barrett sees building diverse leadership teams as her responsibility, as well. She says the women of her generation were made to believe they had three career choices: teacher, secretary or nurse.

“I went through that mental inventory and said I wanted to be a nurse. My dad responded with, ‘Why not a doctor?’ Those four words were instrumental in changing my perception of what girls were able to do.”

Today, Barrett works to empower diverse groups around the world. She built the Artemis program, which supports businesswomen in Afghanistan; and she was president of the International Women's Forum, which helps women share leadership experiences and develop future business leaders.

“It is important that women and girls see women in leadership roles so they can envision themselves growing into similar positions of leadership,” she says. “This concept does not apply exclusively to gender. It also applies to diversity generally, including leaders of varying cultural heritages and races.” 🌟



Legal Eagle

Constantine Marantidis ('84)
brings an engineer's perspective
to intellectual property law

BY COLLEEN RINGER

Upon graduating from Aviation High School in New York City, Constantine Marantidis ('84) thought he'd become a commercial pilot. He moved to Daytona Beach, Florida, to begin his Embry-Riddle education and soon switched from the aeronautical science program to engineering.

"I wanted to have a science degree in case the flying thing didn't work out," he says. "Back then, you couldn't do both at Embry-Riddle, so I got a phenomenal, hands-on engineering education from Embry-Riddle, graduating with two Bachelor of Science degrees — one in aeronautical engineering and one in aircraft engineering technology. I also obtained my commercial pilot's certificate with multi-engine and instrument ratings from outside of Embry-Riddle."

After attending Embry-Riddle, Marantidis attended Columbia University, where he received a Master of Science in Engineering Mechanics and then attended Loyola Law School, Los Angeles. "To be honest, coming from a smaller school, I was surprised I was accepted at Columbia," he says, "but I figured I had the grades, so I could handle it — which speaks to the wonderful education I received at Embry-Riddle. The professors really helped you understand why things work the way they do. They got us to think differently, and it paid dividends."

It turns out he could handle a lot, including working full time at Northrop Grumman while going to law school at night and welcoming a daughter.

With his law degree in hand from Loyola Law School, Marantidis accepted a position at Christie, Parker & Hale (now Lewis Roca Rothgerber Christie LLP) in California and dove headfirst into the world of intellectual property (IP) law, where he would be able to combine his interest in technology with his love of making persuasive arguments.

Protecting Groundbreaking Inventions

"IP law plays a crucial role in promoting innovation by protecting innovators and their inventions," Marantidis says. "I work with people who are very intelligent. They come up with cutting-edge ideas, and you need to be able to understand what they're doing." That's where his pilot, engineering and mechanics education comes into play, giving him the ability to look at designs from multiple perspectives. It is also what allows him to craft successful arguments — the deep level of understanding his background affords helps him translate the technology for a broader audience.

"The facts in all of my cases are technology-based," he explains. "Whether you're enforcing a patent or defending one, you're trying to explain the technology in a way that people understand. The arguments often have to make sense to someone who may not be well-versed in technology."

Throughout his career, Marantidis has represented clients across a wide range of industries, including aerospace, materials science, earth boring

technologies, medical devices, pharmaceuticals, propulsion, nanotechnology and more. There have been a lot of successful cases along the way, but one especially big moment was when he helped obtain patents for SpaceShipOne. Designed for suborbital flight, the spacecraft made news on June 21, 2004, when it became the first private-crewed, commercial craft to leave Earth's atmosphere and reach the edge of space. "It gave exclusivity to Mojave Aerospace Ventures, a company founded by Paul Allen and Burt Rutan, for this type of space vehicle," he says. "As a result, no one else can use that same type of vehicle in the race to space. Its technology is now used by Virgin Galactic."

Marantidis also secured patents for the Martin Jetpack for the Martin Aircraft Company of New Zealand by distinguishing it from existing inventions, and he worked with Abraham Karem, known as the father of drones, on securing patents for the optimum speed tilt rotor (OSTR). "I am able to articulate the differences in technologies that make them inventive, and you need to understand the technology to be able to do that," he says.

The innovations Marantidis has protected aren't limited to air and space — they're also in commonplace public settings. "We have protected and defended the Koala Kare® baby changing station you see in bathrooms," he says. "[And], we're defending a company that makes bollards," which are the posts that jut out of the ground around the perimeters of buildings to deter vehicular attacks, in a patent infringement suit.

Currently, Marantidis manages the creation, enforcement and licensing of patent and trademark portfolios, and he develops strategy and creates the framework for enforcing and defending patent cases on behalf of his clients. But each case still comes down to the individual technology, and he can't wait to see what's coming in the years ahead, especially as it relates to the future application of new technologies, especially in drones and artificial intelligence.

"IP law is something we need in order to innovate and move forward," he says. "It's the catalyst for innovation, and it's always evolving." 🦋

Did You Know?

➔ Embry-Riddle's Technology Transfer Office, a part of the legal department, secures intellectual property protection for the inventions produced by students, faculty and staff as part of the university's research enterprise. Technology transfer helps move those scientific findings to companies so that real-world products can be produced. The public benefits from the products that reach the market and through the jobs that result from the development and sale of these products. During fiscal year 2020, the technology transfer office received 11 invention disclosures from university faculty and filed five patent applications.

Invention Disclosures

FY20 : 11

All : 112





Right: The Gonnion Family (Dec. 21, 2018). Inset: David Gonnion passed away Dec. 20, 1995, in a small plane crash in Ohio. He was a sophomore at Embry-Riddle.

Scholarship Matchup

Challenge allows family to double scholarship impact

BY MELANIE STAWICKI AZAM

Dec. 20, 2020, will mark 25 years since Dave Gonnion's son, David, who was a sophomore at Embry-Riddle, was killed while a passenger in a small plane that crashed in Ohio. He and his wife, Nancy, were devastated by the news, but wanted to do something positive to honor their son, who had wanted to fly since he was a child. So they created an endowed scholarship fund to help other aspiring pilots reach their dreams.

"We founded the David Gonnion Memorial Scholarship Fund at Embry-Riddle in January 1996 to honor David's memory, his passion for aviation and his determination to achieve his personal goal of a career in aviation," says Dave Gonnion.

Thanks to the university's Scholarship Endowment Matching Challenge, announced in 2019, the Gonnion family was able to double their impact when they added to the Gonnion Memorial Scholarship fund this year.

The additional funds will enhance the scholarship, ensuring David's legacy will continue for years to come. It will also allow the Gonnion family to help more Embry-Riddle aeronautical science students who share their son's passion for aviation.

Launched by the Embry-Riddle Board of Trustees at the direction of Chairman Mori Hosseini (HonDoc '13, '78, '79, '82), the program encourages donors to make lasting gifts to the university — those that will provide students with tuition assistance, in perpetuity from endowed funds. The challenge matches, dollar for dollar, cash gifts or pledges (during a term of up to five years) that total \$100,000 or more that are directed to scholarship endowment funds at the university. To date, the program has generated more than \$1 million in new scholarship contributions. Combined with the university's match, this equates to over \$2 million in new endowed scholarships to benefit students.

Dave Gonnion says the match will allow his family's scholarship to help more students in need.

"We hope that we're able ... to assist others who share his passion for aviation in the pursuit of their own aviation career."

— DAVE GONNION

"We hope to provide a permanent, perpetual memorial and recognition of David, and his personal attributes and values," he says. "We hope that we're able through David's scholarship fund to assist others who share his passion for aviation in the pursuit of their own aviation career."

The Ties that Bind

While his son's time at Embry-Riddle was short, it was significant and established ties between the university and the family that remain today. One such tie is a longtime friendship between Dave Gonnion and his son's former flight instructor Joseph A. Divincenzo ('95).

"Every year on the anniversary of David's accident, Joe calls me," Gonnion says. "Joe exemplifies the kind of compassion and personal character that we have come to learn dominates the ERAU culture."

His daughters, Melissa Kroll and Sara Emmons, are also supportive of the scholarship. Melissa says she remembers her brother's room being always full of model airplanes and posters of fighter jets. He studied finance at Iowa State University for a year, then told his dad he was determined to transfer to Embry-Riddle so he could follow his true passion: flight.

"I could tell when he came home after that first semester, he was truly where he was meant to be," Kroll says. "He was at peace while soaring amongst the clouds. We know he would be proud to continue to help others who share his same love for flight." ✈️



THE CHALLENGE CONTINUES

For more information on the Scholarship Endowment Matching Challenge, visit givingto.erau.edu/100kchallenge or contact Senior Vice President of Philanthropy and Alumni Engagement Marc Archambault: archamm1@erau.edu; 386-226-7770.



In 2011, John J. Amore ('73) created the Amore Family Endowed Scholarship. Now, thanks to a new investment from Amore and the Scholarship Endowment Matching Challenge, even more students will receive needed financial aid.

SERVICE + PHILANTHROPY

A natural equation for
Trustee John J. Amore ('73)

BY SARA WITHROW

A U.S. Army helicopter pilot who served in Vietnam, John J. Amore ('73) came to Embry-Riddle in the 1970s to heal from his war experience and to get an education. The camaraderie and sense of belonging he found at the Daytona Beach Campus helped him transition from military to civilian life — and left an indelible impression on him.

So much so that Amore has dedicated the last decade-plus to serving the university as a trustee and made it one of his top philanthropic priorities.

In 2011, as a new trustee, he made what has become his greatest contribution to student success: the Amore Family Endowed Scholarship. To date, eight students with financial need have received scholarships from the fund.

"I hope my scholarship will help relieve some of the financial burden for students and in some cases, allow students to continue their education at Embry-Riddle," he says.

Thanks to a new investment from Amore and the board's Scholarship Endowment Matching Challenge, even more students will benefit from the Amore Family Endowed Scholarship in the future. The challenge provides a dollar-for-dollar match for endowed scholarship gifts (or pledges paid over a five-year period) that total \$100,000 or more.

With his recent gift, Amore joins fellow trustees Jim Henderson (HonDoc '13), Joe Martin (HonDoc '18; '74), Neal Keating and Glenn Ritchey, along with the Gonnion Family (see story on page 22) and Embry-Riddle President P. Barry Butler and his wife, Audrey, in accepting the scholarship challenge.

In addition to his family scholarship, Amore has made significant contributions to student programs and clubs, and just last year he spearheaded and established a matching fund of his own to create a campus memorial for fallen military heroes who are graduates.

A retired CEO for Global General Insurance for Zurich Financial Services, Amore says it is only natural that he support the university that gave so much to him at a critical point in his life. "It was a difficult time, coming back from having served in a very unpopular war. Helping me transition from that to a career in the world of business was a unique service Embry-Riddle did for me." ✈️

STEVE WILLIAMS

On the Front Lines

COVID-19 crisis reveals Eagle character

BY SARA WITHROW

The coronavirus pandemic is a global issue that's impacting nearly every individual and industry in different ways, but it's been particularly trying for those in the business of saving lives. In the U.S., more than 300,000 people and counting have died from complications associated with COVID-19.

"Healthcare workers have become the front line battling the pandemic, as if it were in a faraway land and something you only see on TV," says Phil Franks ('08), a retired U.S. Army Medical Service Corps officer and helicopter pilot. Previously the director of system operations for the Los Angeles County Department of Health Services (DHS), Franks was recently named system CEO for two new Signature Healthcare hospitals in Orange County, California. "There are so many things only seen and heard in the hospital ... society doesn't understand what's asked of you," he says.

At the same time, the crisis sparks a heightened sense of purpose, energy and drive to serve, he adds. "You are anxious, scared and, paradoxically, excited to tackle the challenge."

For Franks and two other Embry-Riddle alumni who are healthcare leaders, COVID-19 is at once the challenge of their careers and the opportunity to effect meaningful change for their hospitals and communities.

"Going through this has forced us, like most healthcare organizations, to rethink how we deliver care," says Dr. Dan Handel ('10), vice president and chief medical officer at Indiana University (IU) Health – South Central Region.

A practicing physician at four emergency departments in the IU Health system, Handel says the coronavirus prompted a level of operational nimbleness that didn't exist before. When COVID-19 cases amplified in March, hospitals stopped offering elective surgeries to ensure patient safety and profits tumbled, he says.

The IU Health system rallied after the first peak of COVID-19, implementing measures that allowed critical care of coronavirus-infected patients and elective surgical procedures to take place in tandem. When a second, even greater spike of coronavirus-infected patients flooded the hospital system in July, Handel says, they were ready. "We're now operating in an environment where we can serve both needs."

Telemedicine Advancements

Another positive development at IU Health is the growth of telemedicine — where doctors meet with patients over the phone or via an online face-to-face platform.

"Telehealth is now being hardwired into a part of how we deliver care, which opens up all sorts of possibilities in access to care, especially for our rural and underserved populations who may have transportation issues," he says.

Matt Wain ('95), the CEO of Emory University Hospital and two other hospitals in the Emory Healthcare system in Atlanta, sees this benefit, as well. "We're now doing 15,000 telemedicine visits a week; we were doing a fraction before," Wain says.

The virus has also spurred drug advancements, including clinical trials on antiviral medications, like remdesivir, which was trialed as an experimental treatment for Ebola during the 2014 outbreak in West Africa. Trials of remdesivir are showing favorable results for those infected with COVID-19, Wain says.

"Our ability to continue innovative therapeutics — in this case more patients were enrolled in the remdesivir trial (ACTT-1) at Emory than anywhere else in the world — contributed significantly to the drug's approval and national success story," he says.

Flexing Operational Muscle

Wain also championed innovations in hospital operations to deal with COVID-19. "We created and honed 'warm zones' and ultraviolet reprocessing of personal protective equipment (PPE)," he says. Instead of "donning and doffing" face masks and other PPE before and after each patient visit, staff working in designated COVID-19 areas, or warm zones, would wear the same PPE from room to room. "The key here," Wain says, "is that this is done while PPE is in good shape." This practice helped conserve the hospitals' PPE supplies during peaks in demand while simplifying the patient care workflow for providers.



As vice president and chief medical officer at Indiana University Health – South Central Region, Dr. Dan Handel ('10) helped implement procedures that allowed doctors to care for coronavirus patients and conduct elective surgical procedures at the same time.

“The ‘crisis reveals character’ saying has definitely borne itself out during this.” — DR. DAN HANDEL ('10)

"The warm zones were a game change, such that we could still protect people," he says. The hospitals implemented stringent COVID-19 testing of their employees, demonstrating the practice was safe. "It was an evidence-based approach to the problem," Wain says.

Wain, who retired from the U.S. Army Reserve in 2008, credits his staff for the hospitals' successes. "At the end of the day, we win or lose with our people. As a leader, it's an honor to shepherd a culture that has risen to the challenge of our generations."

A Disruptive Force

As the chief operations officer for the nation's second-largest municipal health system and the largest county-run correctional health system when the pandemic hit LA, Franks says the coronavirus was and is disruptive. "COVID has challenged every facet of our healthcare system; there's nothing it hasn't touched in some way."

While bed space, PPE and ventilators were top supply concerns, respiratory staffing was an unanticipated challenge, he says.

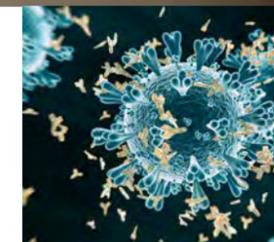
The hospital transfer infrastructure that Franks established in 2018 for LA County DHS was

instrumental in helping find solutions for staffing and care demands. The patient-flow management system was originally designed to get patients who presented at out-of-network hospitals back to their "home" hospital (or repatriated) to the LA County healthcare system. In March, Franks reverse-engineered the transfer center's operations to protect non-COVID-19 patients and focus critical care resources where the need was greatest.

Patients were sent to locations like the newly formed LA Surge Hospital, USNS Mercy, out-of-network hospitals with capacity, the VA and other county-designated quarantine sites supporting COVID operations. "It has greatly reduced the load on our staff, and increased our surge capacity and availability of our equipment," Franks says.

All three leaders agree the pandemic has been a defining moment in their careers. "The 'crisis reveals character' saying has definitely borne itself out during this," Handel says. 🦋

EDITOR'S NOTE: Phil Franks, Matt Wain and Dan Handel all earned Master of Aeronautical Science degrees from Embry-Riddle's Worldwide Campus.



MEDICAL RESEARCH

Audrey Osburn, a student studying aerospace physiology, examined COVID-19 antigens and antibodies with scientists at the U.S. Department of Energy Argonne National Laboratory. Read more: lift.erau.edu/argonne.

PIVOT POINT

Worldwide Campus leverages online expertise to keep students learning during pandemic

BY CYNTHIA PUCKETT

On March 18, in light of the growing number of COVID-19 infections across the country, the university announced all classes would be taught online, and faculty and staff would work remotely. The ripple effect of this decision could have been detrimental to students — especially those expecting to graduate in May. But Embry-Riddle had a built-in advantage: the Worldwide Campus.

As a pioneer in online learning, the Worldwide Campus was well-prepared to help pivot coursework, faculty and students at Embry-Riddle's residential campuses in Daytona Beach, Florida, and Prescott, Arizona, to a virtual platform.

"When the shutdown started, we were ready," says Worldwide Campus Chancellor John R. Watret, Ph.D. "There are a lot of teams working together to create this very active learning environment in an asynchronous world. Our business model is running very well and continues to move forward."

To enhance the experience for students to meet virtually with their instructors, the campus migrated its EagleVision online learning platform from Adobe Connect to Zoom. The transition took place in one weekend.

TRENDING ONLINE COURSES

No. 1
Technical Report Writing

No. 2
Speech

No. 3
Physics

Most popular courses based on summer registrations

"It was definitely an all-hands-on-deck approach that involved several teams within IT Support, Worldwide Academic Technology and RCTLE [Bruce A. Rothwell Center for Teaching and Learning]," says Carey Hansard ('14), executive director of academic technology at the Worldwide Campus. It helped, she adds, that the campus was already preparing to move its platform to Zoom prior to the COVID-19 crisis.

Converting in-class curricula to online modules and getting faculty up-to-speed with online instruction was another hurdle. But not one that couldn't be jumped.

The RCTLE at the Worldwide Campus worked closely with its sister Centers for Teaching and Learning at the Daytona Beach and Prescott campuses to transition residential faculty from in-person instruction to an online modality.

"The Worldwide Instructional Design and Development team was able to provide online course content to residential faculty," Hansard says. "The RCTLE team also created asynchronous faculty training for Zoom."

The asynchronous platform, which uses pre-recorded videos, webinars and discussion boards,

gave the faculty flexibility to complete the training on their own schedules. The Worldwide Campus uses both asynchronous and synchronous online classroom learning systems. The latter takes place in real time, using videoconference, chat and virtual face-to-face technologies.

"At Worldwide, online learning is what we do every day. We already have infrastructure in place to support online learning, and we are able to help faculty with just about anything they need," Hansard says.

Intercampus Cooperation

As the COVID-19 crisis continued, preventing residential students from returning to in-person classrooms for summer session A, the Worldwide Campus opened its virtual doors to allow Daytona Beach and Prescott campus students to continue their education with no delay.

Frederic Ndiaye ('04, '12), executive director of student support services at the Worldwide Campus, worked with registrars and deans to identify equivalent courses among the three campuses, so that residential students could be enrolled in Worldwide courses. He also worked with the provost's office to identify 54 residential faculty members to teach online classes through Worldwide.

Students already enrolled in residential Summer A were automatically shifted to equivalent Worldwide Campus courses and key deadlines were synchronized.

"In our May term, we registered 10,593 Worldwide and residential students into Worldwide courses seamlessly," Watret says. "At the close of Fiscal Year 2020 in June, 91% of our approximately 23,000 students were taking online courses." For the entire fiscal year, ending June 30, course registrations exceeded 92,000, he adds.

Online Popularity

The popularity of online learning at Embry-Riddle preceded the coronavirus pandemic. "Overall, for us at Worldwide, we've seen a significant increase in enrollment every term. Every time we've had a projection, we have met and exceeded that projection," Ndiaye says.

He attributes the continual rise in enrollment to a combination of factors, such as attractive programs that meet the market demand; collective retention efforts from campus and online advisers that encourage students to pursue and complete



REMOTE-LEARNING PIONEER

Embry-Riddle's Worldwide Campus has had several names since its inception on an Army base in Fort Rucker, Alabama, in 1970, but it has always had the same goal: to offer flexibility and remote-learning options for students.

Today, the campus operates more than 125 learning centers on military bases and in cities around the globe, and the quality of its online instruction is world-renowned.

In 2020, for the seventh consecutive year, the Worldwide Campus was ranked among **the nation's top five online bachelor's degree providers by U.S. News & World Report.**

their degrees; and scholarship campaigns geared to re-engage students who stopped classes for financial or other reasons.

"Worldwide's mode of online instruction is [and has been] appealing due to the fact that students do not have to physically attend class at a specific time," Ndiaye says. "They can organize their week so that they can work, have family time and take classes."

In recent months, the pandemic may also have sparked an uptick in enrollment. "The increase in COVID-19 cases all around the world has placed limitations on social activities, which has prompted some students to pursue their education," he says.

A University United

Watret says the COVID-19 crisis, while disruptive, has brought out the best in Eagles from all campuses and made the university stronger.

"The collaboration, the camaraderie and all the support to meet the demand of getting students in class and keeping them going in their education have really brought the three campuses together," he says. 🌟

Building a Hedge Against Headwinds

Embry-Riddle professors are researching a revolutionary risk management solution that could help the airlines weather economic storms

BY CYNTHIA PUCKETT

The airline industry is suffering unprecedented losses as a result of the COVID-19 pandemic. The International Civil Aviation Organization estimated in August that the world's airlines collectively could lose more than \$355 billion by the end of 2020, compared to pre-COVID revenue projections. Additionally, more than 80,000 airline workers are facing (or have now been) furloughed.

It's a devastating situation, but it's not the end of the story: Working with Embry-Riddle, the industry is responding with energy and innovation.

Enter Skytra, a wholly owned subsidiary of Airbus. In partnership with Embry-Riddle's Worldwide College of Business, the company is exploring groundbreaking risk management and market-based solutions that could transform the airline industry and help protect it from future economic downturns. Skytra has created a new set of regulated benchmarks, the Skytra Price Indices, which will permit the aviation industry to hedge volatile ticket prices using financial derivatives. These indices measure the USD/RPK (U.S. Dollar per Revenue Passenger Kilometer) in a given geography and are produced on a daily basis.



From left, Maneesh Sharma at Embry-Riddle and Matthew Tringham and Elise Weber at Skytra are researching risk management and market-based solutions for the airline industry.

Maneesh Sharma, professor and dean of the Embry-Riddle Worldwide Campus' College of Business, says he and Embry-Riddle professors Sunder Raghavan, Alfonso Canella and Ron Mau recently demonstrated that Skytra's proposed Europe-North America (EU-NA) Skytra Price Index could offer future revenue protection of close to 90% — even in the face of a COVID-19-type collapse in yields.

"We see tremendous potential," Sharma says. "We think Skytra's products will enable and lead to revenue protection which will transform the industry."

A 'Learning' Proposition

The research partnership with Embry-Riddle is all about "learning," says Matthew Tringham, Skytra's co-founder and chief strategy and product officer. The agreement allows Skytra to tap into the financial expertise at Embry-Riddle and apply that expertise to a real-world problem.

It was Embry-Riddle's Airline Financial Risk Management course — offered in partnership with the International Air Transport Association (IATA) — that first attracted Skytra to working with the university. Sharma recalls the initial contact from Skytra representatives: "They said, 'We saw your course. We have a proposition; would you put this in your course?' I said, 'I will need to research it.'" And the partnership began.

"We think Skytra's products will enable and lead to revenue protection which will transform the industry." — MANEESH SHARMA

Sharma says Skytra's index revolves around hedging or buying insurance against "uncontrollable" revenue losses. Until now, the airlines did not have the tools or the market infrastructure to hedge revenue. But that's all about to change, he adds.

Airlines have traditionally managed risk by hedging costs, such as fuel prices, interest rates and currency values. However, it is the inability to exercise significant control over revenues that makes the aviation business riskier and more volatile than other service-centric businesses, such as retail and consulting, Sharma explains. "Effective risk management should consider both the revenue and cost of an airline."

Post-It Note Vision

According to Tringham and Elise Weber, Skytra co-founder and chief sales and marketing officer, Skytra began as an idea on a single Post-it note, which grew to become a wall of notes. Three years later, in 2019, Skytra was born. The company was established specifically to create the financial infrastructure necessary for the air travel industry to help risk-manage its revenue volatility. Based in London, the company is awaiting approval from the Financial Conduct Authority in the U.K. to operate as a benchmark administrator.

"We want to give the industry, our customers, tools to better manage their risks — not only hedging costs, but complementing that with the possibility of hedging their yields measured in USD/RPK," Weber says.

Tringham adds, "We're doing this because we believe it could contribute to the financial health and stability of the overall industry."

Weber says educating people about the new market infrastructure (Skytra Price Indices) for a more comprehensive risk management will be key to their success. "It's extremely important for the industry to understand how to use these new tools to help them achieve their strategic objectives," she says.

As part of the education equation, Sharma plans to eventually integrate the Skytra Price Indices and the various ways of using financial derivatives for risk management purposes into his coursework for future Embry-Riddle and IATA students.

Tool for the Future

Sharma says Skytra's revenue hedging concepts could also be leveraged to benefit the greater travel, lodging and tourism industries.

Weber agrees.

"We started off with risk management because this is where the whole idea was born, but there will be many new value propositions, far beyond risk management. There will be new products coming out such as hedging corporate travel budgets and around flexible ticketing for individual travelers," she says. "In terms of research topics moving forward, we have an endless list that we could dig into with a partner like Embry-Riddle." ✎

MESSAGE FROM THE EXECUTIVE DIRECTOR

As I write this letter, we are in the final months of 2020. This was a year of adjustment, challenge, loss and, in some cases, heartbreak. It started out with some of the best opportunities for employment, innovation and the fulfillment of dreams for new graduates and alumni that I have witnessed in my 26 years at Embry-Riddle. As we know, these exciting times were quickly disrupted by the coronavirus pandemic.

At Embry-Riddle, we adjusted *on the fly*, transitioning classes to online and moving faculty and staff to remote work situations (see related story, Page 26). We turned commencement into a virtual activity and set a goal of checking in on 60,000 of our contactable alumni via phone and email. We also hosted over 150 online regional and affinity-based *Talon Talks* and get-togethers. Close to 1,000 Eagles attended these e-gatherings from March to September. And, as the effects of COVID-19 endured, we created and held a weeklong virtual, all-campus Homecoming celebration in October.

While some of us suffered greater losses, we were universally impacted by this crisis. Despite the challenges related to social distancing, we Eagles came together to support one another.

As Eagles, we're known for embracing the tenets of a "universal" world. One that encourages and supports academic curiosity, equity, inclusiveness, teamwork and respect for all individuals.

Our alumni, students, faculty and staff represent a global community. And it's a community that looks out for its own.

Case in point: When the university launched its Eagles Care fundraising initiative to help students suffering financially from the pandemic, alumni and friends contributed nearly \$180,000 (see related story, Page 32).

This universal spirit of mutual support was particularly evident during the online Eagle gatherings we hosted. Alumni shared their résumés, talked about their jobs and job opportunities, offered mentorship and insight, told "corny" jokes and shared joy. One current student even brought his newborn girl to a gathering and spoke of his pride in becoming a parent and being an Eagle.

I encourage you to visit our events webpage (alumni.erau.edu/events) and join us for future gatherings. In addition, there are podcasts and online *Talon Talks*, where Eagles share their knowledge and expertise with one another.

Stay safe, look up and be ready, as we have a lot of work to do to recover from the current COVID-related crisis. But as you work, remember we are one, interconnected Eagle universe. There are more than 140,000 Embry-Riddle graduates who have *been there and done that*, and who are standing by to extend a wing, connect and support one another.

Forever an Eagle,

Bill Thompson ('87)
Executive Director

-  facebook.com/ERAUAlumni
-  twitter.com/ERAU_Alumni
-  alumni.erau.edu/LinkedIn
-  Join the Eagle Network:
alumni.erau.edu/join
-  instagram.com/erau_alumni/
-  alumni.erau.edu/podcast



Tristan Minkoff ('20)



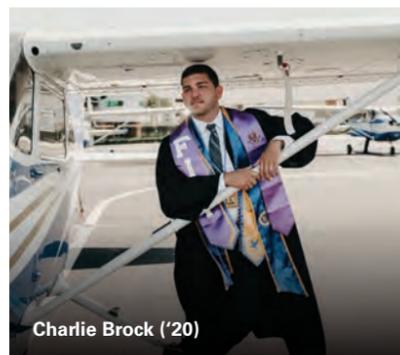
Megan Currier ('20)



Rachel Goldstein ('20)



Graduates received a special mailing with their diploma, alumni pin and other commemorative goodies.



Charlie Brock ('20)

 **WATCH**
Faculty and staff salute the spring Class of 2020.



erau.edu/virtual-celebration

#ERAU2020Grad

Celebrating the spring 2020 graduating class (virtually)

“The 2020 graduates of Embry-Riddle have made history – in a way none of us could have expected. Their focus and resilience convinces me that they will succeed in the face of any professional and personal challenges they face in the future.”

— UNIVERSITY PRESIDENT P. BARRY BUTLER, PH.D.

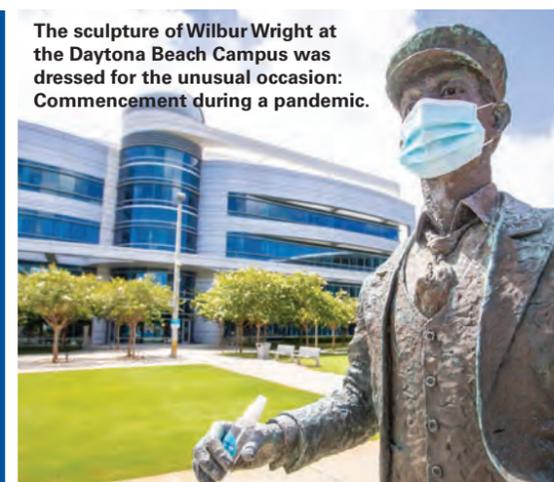


Estelle Jules ('20)



MILITARY COMMISSIONS

Air Force: **55**
Army: **48**
Navy: **26**



The sculpture of Wilbur Wright at the Daytona Beach Campus was dressed for the unusual occasion: Commencement during a pandemic.



TOTAL GRADUATES:
1,747*

Bachelor's degrees: **1,372**
Master's degrees: **363**
Doctoral degrees: **12**

Photos were taken before Embry-Riddle's rules requiring face coverings on campus were in place, due to COVID-19. Graduates shared their photos on social media using #ERAU2020Grad.
*Includes all campuses: Daytona Beach, Florida; Prescott, Arizona; and Worldwide/Online. Fall 2020 graduate information was not available at time of publication.

EAGLES CARE FUNDS HELP STUDENTS WEATHER PANDEMIC

BY MELANIE STAWICKI AZAM

Michael Henriquez had four classes left to complete his aviation maintenance science degree when the coronavirus pandemic threatened to upend his plans.

"I had planned on attending summer classes, while working full time to pay for tuition," he says. "My family was also going to assist me with whatever I couldn't cover in tuition payments."

In mid-March, everything fell apart.

When the majority of local retail and dining establishments closed their doors, in observance of state and national COVID-19 recommendations, the senior found himself struggling to find a job. At the same time, his family took a financial hit when their restaurant was also forced to close.

But thanks to the university's Eagles Care Student Emergency Assistance Funds, some of Henriquez's financial stress was alleviated, and he was able to continue his studies.

Eagles Care Funds were established at each Embry-Riddle campus to help students offset unexpected expenses or help pay for tuition or other educational costs during times of crisis.

In light of the pandemic and the critical need it created for students, by mid-October, 400 Embry-Riddle faculty, staff and friends had collectively contributed over \$180,000 to meet the current and future needs of Embry-Riddle students in crisis.

Nearly 400 students applied for support from the Eagles Care Funds.



Before the pandemic, Khairul Afiq Zolkafli was working four different jobs to pay for his educational expenses.

400+ DONORS | GAVE MORE THAN **\$180K** IN SUPPORT OF | **220 STUDENTS AND COUNTING**

Dreams Interrupted

Like Henriquez, Khairul Afiq Zolkafli had nearly completed his degree and training, when the coronavirus hit.

"I used to work on campus at four different jobs to cover my expenses," says Zolkafli, who came to the U.S. to study through a Malaysian government program. "With the pandemic, I lost my income."

The Eagles Care funding he received came at a critical moment.

"I couldn't be more grateful," Zolkafli says. "Life is not easy, but it doesn't mean we give up."

Read more at givingto.erau.edu/eaglescure.



MAKE A GIFT

You can help students in crisis by making a gift to the Eagles Care Student Emergency Assistance Fund. Donate today at: givingto.erau.edu.

Eagles Remember 9/11



Freedom Tower

Virtual events align and encourage Embry-Riddle community

BY TRISTYN BEMIS ('20)

Almost two decades ago, the world was shaken by a series of violent attacks that struck the U.S. on an ordinary Tuesday morning in September. The 9/11 attacks represented a collective loss of innocence for Americans and ushered in historic changes with regard to domestic security.

Perhaps no industry experienced the latter more acutely than the aviation industry. "So many career fields, the industries, the changes in the airlines, the way we work, the way we travel, the degree offerings here at Embry-Riddle are much different than they were before 9/11," says Bill Thompson ('87), executive director of alumni engagement at Embry-Riddle.

As a university firmly rooted in the aviation industry, the Embry-Riddle community was uniquely impacted by the events of 9/11.

In light of this fact, the office of alumni engagement partnered with Daytona Beach Campus Chaplain Rev. David Keck to host a virtual remembrance, or Eagles E-Gathering, this year, to allow alumni to connect, discuss the industry impact and share their memories of 9/11. Using the Zoom platform, alumni met face-to-face online, despite being in different locations across the globe.

At the event, Andy Nureddin ('85, '93) recalled scrambling to get the student pilots at his Montreal-based training center sheltered or transported home, after hearing of the attack on the Twin Towers in New York City. He later learned that his close friend and fellow alumnus, David Charlebois ('83), was a pilot onboard one of the hijacked aircraft.

"[9/11] left an indelible mark on me, on my career and on my perspective on aviation in general," Nureddin says.

Other alumni attending the event also shared their experiences and how 9/11 impacted their careers. The Eagles E-Gathering was more than just a chance to grieve and heal, it was the first step in a research project meant to culminate in a weeklong symposium in 2021 — marking the 20th anniversary of 9/11.

Thompson, Keck and graduate students Maria Schmiedhofer ('20) and Victoria Gustafsson ('20) are working to collect the memories and perspectives of Embry-Riddle faculty, students, alumni and industry professionals for this symposium.

The 9/11 Eagles E-Gathering was one of more than 150 virtual events hosted by the office of alumni engagement since the coronavirus pandemic struck the U.S. in March 2020. For information about upcoming virtual events go to: alumni.erau.edu/events.

CAREER CORNER

Free job search tool for alumni



Are you looking for a new job? Embry-Riddle Career Services can help you take charge of your job search with its career management system, Handshake.

An online platform that's free to alumni and students, Handshake allows job seekers to search and apply for employment opportunities, sign up for Career Services events, follow employers, receive customized notifications and create a personal profile that's searchable to employers.

careerservices.erau.edu/opportunities/handshake

EVENTS ON THE RADAR

Visit the alumni website for dates and information on upcoming events: alumni.erau.edu/events.

CLASS NOTES

Send us your news! Email your life events to eralumni@erau.edu. For guidelines, visit alumni.erau.edu/notes_guidelines.

Career News

1960s

Harvey Bailey ('64) is chairman of the International Association of Registered Financial Consultants Board of Trustees.

Thomas J. Wittman ('67) received the FAA Charles Taylor Master Mechanic and Wright Brothers Master Pilot awards for 50 years of service. His son, Chad, presented the award to him at The Villages Aviation Club in The Villages, Florida.

1970s

Bruce Rozett ('71) recently retired. He writes: "The time has come to retire. Graced with good health, we have decided to make a major lifestyle change. We are in the process of selling everything that we own so that we can tour this great country in our 31-foot motorhome. Maybe see you in Oshkosh."

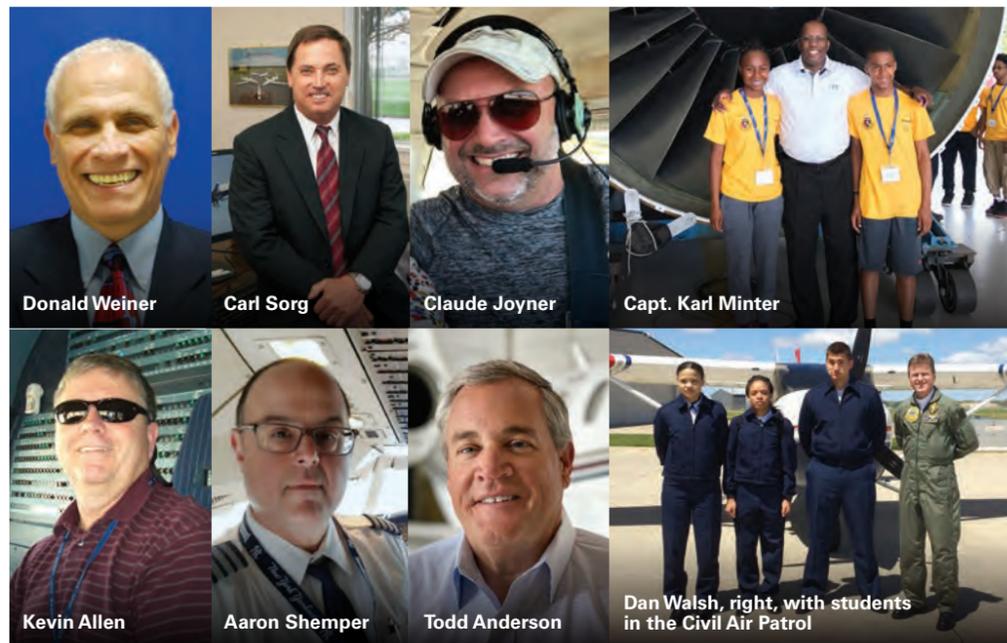
Patrick Leary ('72) retired as vice president of international operations at Russell Stover Candies in Kansas City, Missouri.

Trustee Emeritus **S. Harry Robertson (HonDoc '72)** was honored for his entrepreneurial accomplishments with the Ken Ricci Lifetime Aviation Entrepreneur Award on Jan. 16, 2020, at the 17th Annual Living Legends of Aviation Awards. The namesake of the Robertson Safety Institute at

Embry-Riddle, he is founder of Robertson Fuel Systems, a HEICO Company. The nomination honored Robertson's lifesaving invention, Robbie Tanks. Robertson is a longtime supporter and former board member of Embry-Riddle. He is recognized as "The Father of the Crashworthy Fuel System."

Donald Weiner ('72) is an aviation consultant in Asheville, North Carolina.

David P. Schilstra ('75) received the FAA Wright Brothers Award for flying for 50 years without incident or accident. He logged more than 30,000 hours during that time. Schilstra retired from Delta Air Lines on May 1, 2013, as an Airbus 330 captain.



Carl Sorg ('79) is the director of aviation at the Johnson & Johnson Family of Companies in West Trenton, New Jersey.

1980s

Pat Hassett ('80, '85) was selected to be a chief of mission aide to the Republic of Korea Olympic team at the 2020 Summer Olympic games. The games were postponed to summer 2021. He has worked with Team Korea each Olympics since 2004.

Claude Joyner ('80) is a Fellow of Advanced Propulsion Development at Aerojet Rocketdyne in West Palm Beach, Florida.

Jan Jansen ('81) was promoted to F-22 chief structures engineer at The Boeing Company in Missouri.

Capt. Karl Minter ('81) is a captain at United Airlines at Dulles International Airport in Virginia. He is also a board of trustee member at Tuskegee University and a chairman of the Organization of Black Aerospace Professionals' Board of Advisors.

Laurence Chin ('82) retired as general manager for Singapore and Pacific Offline Sales for United Airlines, in Singapore.

Kevin Allen ('83) is a principal navigation specialist at American Airlines. He writes that he "developed the RNAV visual approach procedure at El Paso for AAL B737 and MD-80 aircraft; [and] validates and processes navigation databases every month for the entire fleet of 951 aircraft."

Jeffrey Williams ('83) retired in June 2019 as director of quality assurance from Astronautics Corporation of America in Milwaukee, Wisconsin, after working there for nearly 31 years.

Philip A. Canal ('85) is a member of the FAA Safety Team in Vero Beach, Florida, for the Orlando Flight Standards District Office. Canal had a 30-year career with the FAA doing technical and administrative work at both the William Hughes Technical Center and Headquarters FAA. He retired with 32 years of federal service and joined other volunteer members of the Indian River FAAST in giving free safety seminars to pilots, aviation mechanics and others interested in aviation. Canal and his wife, Kathleen, support a scholarship at Embry-Riddle in their names.

Stephen Blanchette Jr. ('86) is an inaugural member of the university's new College of Security & Intelligence Philanthropy Council. Blanchette is the director of software systems and acquisition at The Aerospace Corporation in D.C.

Sigmund Grudzinski ('87, '89) retired after 42 years of federal service with the U.S. Air Force Research Lab. He was a senior electronics engineer, working first on microcircuit analysis and electromagnetic compatibility/electromagnetic interference analysis on aircraft and weapons systems. He then spent 33 years evaluating the performance of antenna systems on various military platforms, weapons, data links and foreign military sales programs.

Aaron Shemper ('87) has been at Airborne Express/ABX Air going on 25 years. He writes: "I have been a DC-9 captain and standards pilot, and I'm currently a Boeing 767 captain."

Todd Anderson ('88) was appointed chief operating officer of Sheltair.

Karen Feaster ('89) was named director of the Daytona Beach International Airport. Feaster, who began her 27-year career at the airport as an intern, has held the title of deputy director for the past five years.

Peter McAlindon ('89) is CEO of Blue Orb Inc., a Winter Park, Florida, technology company that develops computer technology for persons with disabilities.

Frank A. McFall II ('89) is a first officer and pilot for SkyWest Airlines in Utah.

1990s

Pete Clukey ('90) marked his 30-year anniversary with Lockheed Martin this June. For the past 24 years, he's worked in the technical support center, supporting everything from the Model 5 Vega to the C-5M Galaxy.

David McCluskey ('92) is a stress/electrical engineering manager at Safran Cabin in Bellingham, Washington.

Larry Sandford ('92, '97) retired from United Airlines in June 2019, after 46 years of flying and 24,111 flight hours.

Chris Rondeau ('93) is area director for Man in the Mirror in Greenville, South Carolina. He writes: "After 27 years in aerospace ... I will be a ministry

Leaving a Legacy for Future Eagles

Wow, how things have changed! I never thought I would be wearing a face covering into a bank or that I would not be able to shake someone's hand when I meet them. But the reality is this is the new norm for a while.

During this unusual time, many people have called me to talk about their estate plans. Did you know that over 60% of people do not have a will or living trust? In those cases, the state in which they reside determines the distribution of their assets upon their death. I know it is not a pleasant thing to think about, but we should all set time aside to complete our will or living trust.

As you evaluate how you would like to distribute your assets, consider leaving a legacy at Embry-Riddle. Some alumni and friends who include Embry-Riddle in their estate plans

establish a scholarship or provide funding for a specific program. You can leave a percentage of your estate, a specific dollar amount, a certain item or your entire estate to Embry-Riddle.

Most alumni tell me they want to ensure family and friends are taken care of first, but they like the idea of setting up a scholarship at Embry-Riddle after their passing. It's the final thank-you to an organization that helped you accomplish your goals in life.

If you would like to learn more about including Embry-Riddle in your will or living trust, please contact me at travis.grantham@erau.edu or 386-226-7568. I would be happy to share the facts about estate giving with you.

If you've already designated a gift for Embry-Riddle in your estate plan, please contact our office to guarantee your wishes are carried out properly. I look forward to speaking with you about your legacy at Embry-Riddle.



Travis Grantham
Executive Director of Gift Planning and Special Gifts

A GIFT to Embry-Riddle Can Give You Income for Life



A charitable gift annuity provides fixed payments for life and tax benefits, in exchange for a gift of cash or securities to Embry-Riddle. Rates of return on investments are greater than traditional saving options (e.g., certificates of deposit/savings accounts) and benefit Embry-Riddle and its students at the same time.

SAMPLE RETURN ON \$10,000 INVESTMENT:

Age	Rate of Return	Annual Earnings for Life
65	4.7%	\$470
70	5.1%	\$510
75	5.8%	\$580
80	6.9%	\$690
85	8.0%	\$800

For a customized quote, contact **Travis Grantham** at 386-226-7568 or email travis.grantham@erau.edu.



consultant for churches to help men build better lives for themselves, their marriages and families. You still can't take the engineer out of me though."

Michael Sotir ('93) took a temporary sabbatical from his aviation career to compete in the final two legs of the 2019-2020 edition of the Clipper Round the World Yacht Race. As a crew member of the Ha Long Bay Viet Nam team, Sotir raced the Seattle-Panama-New York-Bermuda-Derry/Londonderry-London routes. The team finished second overall. He was one of the founding members of

the rowing team at the university's Daytona Beach Campus.

Dan Walsh ('93) became a high school science teacher after retiring in 2005 from the U.S. Navy. He writes: "Five years ago I started a Civil Air Patrol program at John Adams High School in South Bend, Indiana, to help students become interested in aerospace education. Ever since then I have managed to positively impact 20-plus students per year in this CAP program." His program was featured by the Civil Air Patrol National Headquarters.

Kris Villarreal ('94, '02) is a security programs manager for the U.S. Air Force at Cape Canaveral Air Force Station in Florida.

U.S. Army Reserve **Col. Jeremy R. Baran ('96)** graduated from the U.S. Army War College at Carlisle, Pennsylvania, with a master's degree in strategic studies on July 24, 2020. A former resident of Longmont, Colorado, Baran resides in St. Louis and supports Scott Air Force Base as a defense contractor. He will become the next chief of the Individual Mobilization Augmentee program

and operations officer for Military Surface Deployment and Distribution Command at Scott Air Force Base in Illinois.

Adrian Butler ('96) joined Casey's General Stores Inc. as chief information officer.

Alejandro Henao ('96) is financial manager at University of Florida in Gainesville, Florida.

Ken Hurt ('97) was named vice president of engineering for Next Generation Avionics at Honeywell

Aerospace. He is also Honeywell's executive focal liaison to Embry-Riddle.

Rachel Phillips ('97) is a project manager at Leidos in Houston, Texas.

Ralph Taylor ('97) is a flight officer at United Airlines at O'Hare International Airport in Chicago, Illinois.

Andreas Weseman ('97) received Utah State University's (USU) 2020 Eldon. J. Gardner Teaching Award. Weseman has been teaching at USU since 2015. He served 27 years in the U.S. Air Force and became a certified instructor in six different types of aircraft.

Joe Gibney ('98), chief operating officer of TAC Air, was appointed to the National Air Transportation Association's Board of Directors.

Christopher Shams ('98) is a V2500 contract cost and technical manager for Pratt & Whitney in Hartford, Connecticut.

Lisa Anderson ('99, '03) was honored with the 2020 Eastern Kentucky University (EKU) Alumni Professional Achievement Award. She earned her bachelor's degree at ECU before graduating from Embry-Riddle with two master's degrees. Anderson was hired to create the United Nations' first office solely focused on assessing the relative safety of global commercial air operators. She currently heads up the aviation risk management office for the United Nations Department for Safety and Security. Anderson is also an inaugural member of Embry-Riddle's David B. O'Maley College of Business Philanthropy Council.

2000s

Barbara Bendkowski Hilton ('01) is a program executive and mission manager at the NASA Earth System Science Pathfinder Program Office at NASA Langley Research Center in Hampton, Virginia.

Sean Rogers ('01, '02) was named the executive director of inclusive excellence at University of Rhode Island College of Business. Rogers, who is the Spachman Professor

of Human Resources and Labor Relations and an associate professor of management, will collaborate with the university's office of community, equity and diversity to address issues of diversity in recruitment and retention, student success and curriculum development.

Tierney Young ('01) is currently a technical lead and manager of a team of 20 aircraft engineers at Mitsubishi Aircraft Corporation. She writes: "Half of my team is based in Japan and the other half is based in Renton, Washington. We are working to support the completion of the MRJ/M90 Space Jet Type Certification."

Mark Withrow ('02) is president and general manager of Kaman Composites U.S. He has led the composites sector at Kaman for the past three years. His team was recently awarded a 2020 Elite Supplier award from Sikorsky (one of 28 Elite Suppliers recognized from a pool of 11,000), and secured a \$118 million contract from a major engine original equipment manufacturer.

Simone Drakes ('03) is director of quality and regulatory standards at United Airlines in Chicago, Illinois.

Ryan Frans ('03) is a software engineer/first officer at The Boeing Company in Everett, Washington.

Sarah Nilsson ('03, '06), an Arizona-licensed aviation attorney and Embry-Riddle professor, is a volunteer for Angel Flight West. She recently delivered boxes of fresh produce to Chinle, in the Navajo Nation, and to the Hualapai Tribe in Kingman, Arizona.

Brian T. Musselman ('04) is the newly inducted president of the Aerospace Human Factors Association. He is the director and commander of the U.S. Air Force's 628th Medical Group at Joint Base Charleston, South Carolina. Under his lead, the 628th Medical Group was selected as the 2018 USAF Surgeon General Clinic of the Year. He also serves as chair of the Lowcountry Federal Healthcare Alliance.

Dana Novinskie ('04) is an evaluator pilot for Delta Air Lines in St. Paul, Minnesota.

Donovan Saadiq ('04) retired from the U.S. Air Force. He was an aircrew member in aviation operation at March Air Reserve Base in Moreno Valley, California.

Cole Henderson ('05) is captain and assistant training manager at Kiewit Corporation.

Rohan Bhatnagar ('08) is a senior engineering manager at Collins Aerospace.

Adam Calka ('08) is a first officer at Envoy Airlines.

Said Rahimzadeh-Kalaleh Rodriguez ('08) received the Royal Netherlands Academy of Sciences and Arts' KNAW Early Career Award for his innovative research in the engineering and natural sciences category. He heads the interacting photons group for the Center for Nanophotonics at the Institute for Atomic and Molecular Physics (AMOLF) in Amsterdam.

Alana Brooks ('09) is director of air operations at Sallyport Global. She writes: "My latest promotion has been to deputy director of air operations at a foreign military base in the Middle East that is supported by the U.S. government. . . . My career in air operations has taken me from Florida to the middle of the Pacific (Marshall Islands/Wake Island), to the middle of the Atlantic (Ascension Island) and now in the Middle East. One of the reasons I love working in air ops is that it's everywhere."

Luis Carlos Carmona ('09, '15) is a captain of the A320 fleet at LATAM Peru.

2010s

Andrew Antonucci ('10) graduated from the Charleston School of Law in Charleston, South Carolina. He plans to practice law in Florida and Georgia.

Esteban Arcila ('10) is an airline pilot/captain at Piedmont Airlines.

Ben Hurlbutt ('10) is an SF-50 production supervisor at Cirrus Aircraft in Grand Forks, North Dakota. He is also president of the Cirrus Aircraft Flying Club – Grand Forks Chapter.

Andrea Lusso ('10) was appointed vice president, network planning at JetBlue Airways. He will oversee the execution of the company's network strategy through route and schedule planning. He is a commercial pilot and certified flight instructor.

Kerianne Hobbs ('11), a research aerospace engineer with the Air Force Research Laboratory (AFRL) Aerospace Systems Directorate, earned the 40 Under 40 award from the International Armed Forces Communications and Electronics Association.

Zach Laser ('11) is an F-35B pilot for the U.S. Marine Corps.

Bobby Sidhu ('11) is a pilot captain at GEICO, based at Washington Dulles Airport.

Jay Woo ('12) flies about 15 missions a year for the Hope Air charity. Woo uses his plane to bring people from Northern Ontario into the Greater Toronto Area for medical treatment.

Alex Alecci ('13) is a new member of the First Alert Weather team at WESH 2 News in Orlando, Florida.

James Dingell ('13, '15) is now manager of the contract management division at Ronald Reagan Washington National Airport in Washington, D.C. Dingell recently connected the airport's human resources department with Embry-Riddle's David B. O'Maley College of Business and Career Services to create a career pipeline for graduates.

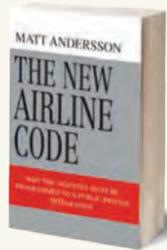
Banjaree "Moss" Potjanasit Score ('13), who is an analyst for the FOQA program in safety and regulatory compliance at Piedmont Airlines, was selected for the Piedmont President's Award. Score has worked for Piedmont for five years.

Basam Alabdulhai ('14) is currently an A330 pilot for Saudi Airlines in Saudi Arabia.

Nicholas Albert ('15) is program development coordinator at Aurora Flight Sciences Corp.

Angelica Garcia ('15) is a simulation and software engineer at NASA Johnson Space Center.

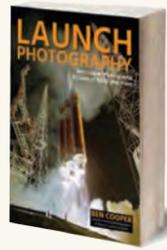
EAGLE AUTHORS ON THE BOOKSHELF



Matt Andersson ('78) authored *The New Airline Code: Why the Industry Must be Programmed to a Public-Private Integration*, published in 2005. Andersson is the president of Indigo Aerospace and founder and former CEO of Indigo Airlines.



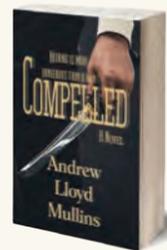
Robert M. Brantner ('91) authored his third book, *Five Hundred Feet Above Alaska*, published in 2019. The book was an International No. 1 Amazon Bestseller in seven categories in the U.S. and Canada. Brantner started his flying career as a bush pilot in Alaska, but is now a captain and line check airman for Delta Air Lines.



Ben Cooper ('08) authored and illustrated *Launch Photography*, published in 2019. The book includes wide-angle captures, night photographs and images shot from seldom-seen angles of crewed and uncrewed rockets/spacecraft, as well as informational text. Cooper has been photographing missions and launches since 1999 for NASA, SpaceX and others.



Embry-Riddle Professor Emeritus Howard D. Curtis authored *Orbital Mechanics for Engineering Students*, Fourth Edition, published in 2020 by Butterworth-Heinemann (Elsevier). The first edition was published in 2005. Curtis taught aerospace engineering at Embry-Riddle's Daytona Beach Campus from 1972 to 2014.



Andrew Lloyd Mullins ('06) authored his first novel, *Compelled*, a suspense thriller set in Phoenix, Arizona, published in 2020 by Zimbell House Publishing.



T. Yomi Obidi ('76) authored *Her Wedding Day*, a literary book published in 2018. A member of Embry-Riddle's adjunct faculty, he is also the author of technical books: *Theory and Applications of Aerodynamics for Ground Vehicles* (2014) and *Thermal Management in Automotive Applications* (2015), both published by SAE International.



Mike W. O'Neal ('06) authored *The World I Woke Up To*, published in 2020 by Amber Cove Publishing. The novel's plot involves an illness that turns people into monsters. "It's been very interesting publishing a book about a pandemic during a pandemic," O'Neal says.



Ginger Pinholster, adjunct faculty and associate vice president for news and research communications at Embry-Riddle, authored *City in a Forest*, a novel published in 2019. Named a Distinguished Favorite in the contemporary novel category of the 2019 NYC Big Book Awards, the novel weaves themes of race and gender amidst a plot to save Atlanta's urban forest.



Thomas Tacker, who is a professor of economics at Embry-Riddle, authored *Overcoming: The Inspiring Story of America's Freed Slaves, Our Other Greatest Generation*, published in 2019. The book celebrates the successes of former slaves after the Civil War.

ARE YOU AN AUTHOR?

Embry-Riddle's Office of Alumni Engagement has created an online Eagle Authors directory. Authors may post their published titles — and readers can browse the digital shelves — here: alumni.erau.edu/authors.

Shelby King ('15) is a pilot for Planet 9 Private Air. She writes: "Working our way to an 'unmanned' crew! I recently upgraded to cruise captain, which means I get to fly with fellow alumna **Abby Grippin ('16)**."

Alexander Kolkena ('15) is a structural engineer working for the U.S. Army Corps of Engineers in Albuquerque, New Mexico.

Kyle Sigler ('16) is a geospatial chief in the U.S. Marine Corps. He was recently promoted to gunnery sergeant and is moving to a new fighter aircraft squadron to serve as imagery intelligence chief.

Matthew Clark ('17) is currently an electronics quality supervisor at Delta Group.

Joao Victor Cogo ('17) is a propulsion technician serving in the U.S. Marine Corps.

Ashlyn Lockett ('17) is a quality control manager, safety compliance at HWC Logistics. She writes: "Earning an M.S. in Logistics in Supply Chain Management from Embry-Riddle was the best decision I ever made. Since graduation, I have been promoted from desk level, account owner to a double management role (quality and facility manager). I strongly believe I wouldn't be where I am today without the tools I obtained in the MSLSCM program. Thank you, Embry-Riddle!"

Sergio Sovero ('17) is an Atlanta-based pilot at Delta Air Lines. He writes: "I graduated back in 2017 with a Bachelor of Science in Aeronautical Science. I started my career flying the Embraer 175 for Republic Airways for two years. I currently fly the Airbus A320 for a major U.S. carrier. My advice to all students is to pursue their dreams and get involved as much as they can while at ERAU in leadership positions."

Bruno Malo Torres Trueba ('17) is now one of three trainees of Volaris Airlines' talent development program, which focuses on integrating young, high-potential professionals into the company and guiding them on becoming Volaris' future leaders.



Jeremiah Avery



Mike Bornemann, Jordan Pfile and Andrew Fama

Jeremiah Avery ('18) is an additive manufacturing focal at The Innovation Center at Boeing's Renton, Washington, plant. Avery and his colleagues produced 3D-printed face shield frames for FEMA for distribution to hospital workers.

Kim Kissh ('18) is a corporate line pilot and flight administrator for Tailwind Air Service in White Plains, New York.

Danielle Rosales ('18) is celebrating her three-year anniversary at Space Tango in Lexington, Kentucky. She writes: "As an advocate for student success and networking, I look forward to using this exciting experience to help any students who are seeking guidance and are interested in the commercial aerospace industry."

Naia Butler-Craig ('19), a first-year graduate student at the Daniel Guggenheim School of Aerospace Engineering at Georgia Tech, was honored with the 2020 Modern-Day Technology Leader Award.

Second Lt. Hailee Clark ('19) was awarded the Commandant of the Marine Corps' Trophy on Dec. 5, 2019, for finishing first in her class of NROTC Midshipmen at Officer Candidate School. She was one of seven candidates from across the country who received the award. This is the first time a Midshipman from Embry-Riddle has earned this honor. The Commandant's Trophy was also presented to Embry-Riddle in recognition of the dedication of the school and its many instructors to help mold future officers.

Mikayla Quesenberry ('20) is a cadet at Envoy Air Inc., a wholly owned subsidiary of American Airlines Group.

Marriages/ Engagements

2000s

Oswaldo "Oz" Maitas ('05) married Didem Beydemir on Jan. 15, 2020, in Hong Kong. Maitas writes: "We met at work in November 2018 on a flight to Munich, which we were both operating. I was born in Venezuela and went to school in the USA. Today, I feel extremely happy and blessed at having found the love of my life in a woman born in Turkey, while working in Qatar, on a flight to Germany and getting married in Hong Kong. It's never too late, cheers!"

2010s

Jill Farkas ('15) and **Chekote Naden ('15)** were married on June 20, 2020. They reside in Dallas, Texas, where Farkas is a 787 fleet engineer for American Airlines and Naden is pursuing a master's degree in engineering management from Southern Methodist University while on shore duty with the U.S. Navy.

Other

Andrew Fama ('05), the U.S. Air Force's (USAF) lead test pilot assigned to the HH-60W "Jolly Green II," is among several Embry-Riddle alumni working on the USAF's Combat Rescue Helicopter (CRH) program. He is pictured above with fellow alumni **Mike Bornemann ('04)**, CRH lead flight test engineer at Sikorsky Aircraft Company, and **Jordan Pfile ('18)**, a USAF contractor and flight test engineer civilian, in

front of Whiskey 8 at the 2020 Air Warfare Symposium. Other alumni on the CRH team include **Danielle Bardinelli ('16)**, Sikorsky avionics team member; **Dustin Freeman ('16)**, Sikorsky avionics flight test engineer; **David Garza ('04)**, Sikorsky aircraft technician; **Rachel Garza ('04)**, Sikorsky lead propulsion flight test engineer; **Shawn Hammond ('17)**, USAF HH-60W project manager; **Jeff Slayden ('84)**, Sikorsky manager of mission systems integration team; and **Scott Wilkinson ('05)**, Sikorsky special projects flight test engineer. Fama writes: "What's been fun about testing on this team is the instant connection that came with the common ERAU background many of us share as alumni. Many of the days feel like going to work with friends. Reminiscing about the old college days before a flight brief, flying together, having an old classmate clearing us from one test point to the next from the telemetry room. What will be rewarding is, in the end we will all have worked together to make something meant to save lives. I think that's pretty cool."

Timothy Marge ('09), who leads the F-35 HMS Queen Elizabeth Class test team, was recognized with his team for their outstanding accomplishments at the 2019 Naval Air Warfare Center Aircraft Division Commander's Award Ceremony. Other Embry-Riddle alumni on the test team include **Seth Dion ('03, '06)** and **Seth Shaw ('07)**.

Lt. Col. John Caldwell ('13), **Capt. Michael Brewer ('05)** and **Lt. Col. Kevin DiFalco ('14)** are all members of the U.S. Air Force Thunderbirds Demonstration Squadron that visited campus in February, while in town for the Daytona 500. Caldwell is the commander and leader of the squadron, Brewer is the right wing pilot and DiFalco is director of operations.



It's Electric

Readers identify the people and circumstances surrounding this image, which was published in the spring 2020 edition of Lift.

Electric Car Club

This picture is of the first ERAU Electric Race Car taken in the main Prescott ERAU parking lot in 1993. I remember security clocking this electric car at 110-plus mph during our test runs. Of course, this was on the Prescott Airport runway, not around the campus parking lot. I remember the airport tower contacting us, amazed at the high speeds that we were doing. I was the first ERAU Electric Car Club President from 1992-1994, where we built this electric car from ground-up to race at the Arizona Public Service (APS) Solar & Electric at Phoenix International Raceway. We took third place.

This project started from our first Saturday club event to dismantle a donated Volkswagen Bug for the use of its front and rear suspension. Then, the team held a yard sale, to sell the remaining parts that were used to initially fund this project. ... My goal was to involve many of the majors: electrical engineering/computer science to focus on the electric motor/controller and batteries, aerospace engineering to focus on wind tunnel testing and construction of the frame and composite body, aeronautical science to assist in safety and piloting the car, and aviation business administration to manage the finances and sponsorships. Also, this project involved a large number of

sponsorships: Prescott Steel & Supply donated the chrome molly tubing; Goodyear donated the tires and did the alignment; HEXCEL donated the honeycomb composite that was used to encapsulate and protect the driver; and GE donated the electric motor/controller.

I believe that this project provided valuable hands-on experience for all of the team members. Along with the technical skills that we learned, I remember suiting up for business presentations with GE and APS, learning how to seek funding and support from our sponsors, learning leadership skills and how to work together as a team. This project taught me valuable lessons that I have been able to use in my career as a lead, staff systems engineer at L3Harris/ACSS located in Phoenix, where we develop aircraft communication and surveillance products, enabling safety of flight. This was a life experience I will never forget!

There were many people involved in this project. Some of them are in this photo. I recognize Seth Ward (top left), Tony Dibb ('09) (driver) and Todd Worden ('97) (right of driver).

Our main leadership team consisted of Mac Romeiser, faculty adviser; Mike Zuehlsdorff ('95), vice president; Vi Quach ('96), race coordinator and driver; Tony Dibb ('09), driver; Jason Giddings ('98), designer; Jason Anderson ('94),

safety coordinator; Mark Lubinski ('94), finance; and Dave Hatch ('94), finance.

Tom Eich ('94)
B.S. Electrical Engineering
Electric Car Team President

ACES Demonstration

That's me in the purple shirt. This picture was taken around 1993 at the Prescott Campus. I was there for an alumni advisory group — I think the Alumni Council for Enrollment Support (ACES program). I was president of the Seattle Alumni Chapter at the time. The students had started an electric car program, and they showed it off to our group and raced it around the parking lot.

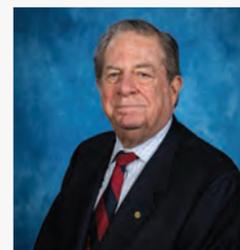
James Ahrens ('90)
B.S. Aeronautical Studies

Free Ride

I'm glad I clicked on the picture. I'm in it. I'm on the left side bent over at the waist wearing an Embry-Riddle sweatshirt with blue shoulders. The picture was taken at OctoberWest. It was a demonstration of the electric car built by the students. I got to drive it. I'm pretty sure I was the oldest grad there, and I jumped at the chance to try it out. The car was going to be in a competition in Phoenix.

Anthony "Tony" Walsh ('83)
B.S. Aeronautical Studies

PHOTO COURTESY OF THE EMBRY-RIDDLE ARCHIVE



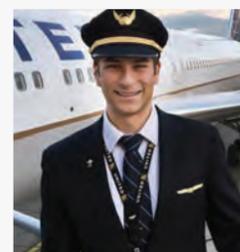
Lawrence Clarkson •

Oct. 31, 2020
Trustee Emeritus Lawrence Clarkson, 82, retired as president of Boeing Enterprises in 1999. His stature within Boeing prompted *The New York Times* to call him "the closest thing (Boeing) has to a corporate secretary of state." Prior to Boeing, he worked for Pratt & Whitney, rising

to the position of president of commercial products. He also served as a captain in the U.S. Air Force.

An Embry-Riddle Board member from 2002 until 2013, Clarkson supported an ambitious program of facility expansion and improvements, and offered guidance after a tornado hit the Daytona Beach Campus in 2006.

"As we navigate through our own challenging times, it is inspirational to realize that Lawrence Clarkson and his fellow board members remained focused on serving students. The spring semester for 2007 was delayed by only six days. That's a level of resilience we are living up to today," says Embry-Riddle President P. Barry Butler.



Costas J. Sivyllis ('12) •

Oct. 5, 2020
Costas J. Sivyllis ('12), 30, and his wife of four days, Lindsey Vogelaar, 33, died when the Beechcraft Bonanza Sivyllis was piloting crashed in Colorado — four days after their wedding in Telluride. Sivyllis was a first officer for United Airlines, chairman of the National Education

Committee for the Air Line Pilots Association International and an Embry-Riddle graduate with close ties to his alma mater. A member of the College of Aviation Industry Advisory Board, Sivyllis delivered the convocation address to incoming students at the Daytona Beach Campus just two months before his death.

"Costas was an incredible student, flight instructor, mentor and alumnus for the Embry-Riddle community," says Ken Byrnes, flight department chair and assistant dean of the Daytona Beach Campus College of Aviation. "His level of passion for the aviation industry and for Embry-Riddle was unmatched."

An endowed memorial scholarship has been established in his name: givingto.erau.edu/costas.



Rudy Frasca •

May 11, 2020
Rudy Frasca, 89, was the founder of Frasca International and a leader in the flight simulator industry. His legacy as a flight simulation engineer lives on at Embry-Riddle, where students continue to learn by using Frasca simulators.

"I had the pleasure of knowing Rudy for nearly 35 years. He was

a charismatic and innovative giant in aviation, and his contributions to pilot training have been profound. The Frasca name is synonymous with general aviation simulation," says Daytona Beach Campus College of Aviation Dean Alan Stolzer.

In Memoriam

1940s

Capt. John Richard Charles ('44)
Feb. 17, 2020

1950s

Arthur Murray Cunningham ('53)
July 15, 2020

1960s

John R. Crump ('62)
April 19, 2020

Robert Theodore Thrasher ('63)
April 18, 2020

Arne Swanson ('65)
June 25, 2020

Robert Michael Hamaty ('66)
June 13, 2020

1970s

CWO Gregory A. Wood ('72)
April 14, 2020

Richard C. Farley ('77)
June 3, 2020

Richard Samuel Sarvas ('77)
May 21, 2020

Maj. Vince "Woody" Woodward ('78)
May 4, 2020

1980s

Barry Panasik ('81)
June 17, 2020

James E. Afflerbach ('84)
March 24, 2020

John T. Bente ('84)
May 9, 2020

Robert Harrilchak ('84)
Jan. 2, 2020

Mark A. Radcliffe ('84)
April 11, 2020

Robert William Listerman ('85)
June 19, 2020

Michael Fingerhut ('87)
Jan. 22, 2020

1990s

Michael A. DeFurio ('90)
June 19, 2020

Brian Lewis ('91)
April 30, 2020

Shane Corbitt ('92)
Feb. 26, 2020

Ray Calvert Spees ('95)
April 24, 2020

Kevin J. McAadoo ('96)
April 7, 2020

Nick Constantine Papayianis ('96, '00)
March 31, 2020

Jack M. Patton ('97)
March 11, 2020

Melton C. Whitsitt ('97, '02)
May 9, 2020

Lt. Col. Christopher Gerald Willander ('97)
Jan. 25, 2020

Vice Admiral John P. Currier ('98)
March 1, 2020

2000s

Mark "Novo" Nowosielski ('00)
Jan. 25, 2020

Randy Steven Smith ('01)
Jan. 29, 2020

Lt. Col. James T. Rich ('02)
Mar. 28, 2020

David William White ('03)
June 7, 2020

Col. Hunter S. Letchman ('07)
March 17, 2020

2010s

Brittani N. Berg ('11)
Feb. 13, 2020

Kathleen Denise Shanas Parker ('11)
April 4, 2020

First Lt. David Schmitz ('16)
June 30, 2020

Matthew Joseph (Kirsch) Burchfield ('17)
April 20, 2020

OTHER

Leon E. Flancher
Former chancellor and professor emeritus at Embry-Riddle's Worldwide Campus
April 18, 2020

Stephen J. Glassman
Former faculty member at Embry-Riddle's Daytona Beach Campus
May 19, 2020

Raymond Joel Johnson
Former member of the Prescott Campus Board of Visitors
April 7, 2020

HELP US MEMORIALIZE EMBRY-RIDDLE EAGLES

Notify the alumni engagement office at eralumni@erau.edu, if you are aware of any classmates who have died.

For obituaries and up-to-date death notices, visit alumni.erau.edu/passings.

TAILWINDS

Temporary Quarters

Was this your Embry-Riddle *home*? When Embry-Riddle moved from Miami to Daytona Beach in 1965, it turned a local hotel into a temporary residence hall. This photo (circa 1967-68) shows the hotel courtyard and swimming pool. Help us fill the gaps in Embry-Riddle's institutional knowledge. Tell us about this "temporary" dorm and your experience there. We'll share the details in the next edition of *Lift*.

Email: liftmag@erau.edu



Photo courtesy of the Embry-Riddle Archive