

Lift



CAPTAINS OF INDUSTRY

These aviation business leaders are at the top of their games—and they're helping the next generation get its start

FROM THE INTERIM PRESIDENT



I have the great honor and pleasure of joining Embry-Riddle on a day-to-day basis—at least for a short period of time until a permanent president is recruited. Embry-

Riddle first came on my radar screen in 1999 when I was at the University of Georgia. I was asked if I might be interested in becoming a member of the President's Advisory Board (PAB) at Embry-Riddle Aeronautical University. Knowing very little about the university or the aviation/aerospace industry, I saw it as an opportunity to learn about another very special, niche university and a chance to contribute my expertise (although an "outsider" in terms of the discipline), from the perspective of my knowledge of higher education. The PAB meetings introduced me to the passion that everyone associated with Embry-Riddle feels for aviation, and especially for this university. And, even as a biomedical scientist, I was never made to feel I was an outsider but was welcomed for what I could contribute.

I was then invited to serve on the board of trustees and have greatly enjoyed the experience as I became more knowledgeable about the programs and activities of the university. I have watched Embry-Riddle grow in virtually every way—enrollment, capital facilities, academic programs, research and partnerships, and most importantly, the success of the students and the exceptional rankings of the academic programs that just keep getting better. Recently, for example, College Choice Best Engineering Programs ranked Embry-Riddle No. 11. While you may say, "Why not No. 1?" the answer is because those ahead of us include Stanford, MIT, UC Berkeley, Caltech and Georgia Tech—all of which have had scores of years before us to build their programs (undergraduate and graduate) and their reputations.

We are indeed in good company and we will continue to get even better as we follow our vision to be the world's source for innovation and excellence in aerospace education and applied research—and as we live up to our core values to strive for excellence, act with integrity, express passion, live the safety culture, exhibit professionalism and forever explore. Our goals are to ensure our future and long-term sustainability by promoting student success, diversifying our funding sources, expanding the research enterprise, developing a comprehensive international strategy and building a sense of "university." These are goals that whoever is sitting in this chair can continue and develop even further.

Lift magazine has always portrayed the energy and excitement of Embry-Riddle, but it takes firsthand experience on campus to realize everyone's passion for this institution and the reason we are all here, and to understand why our students, faculty and staff are so special. The other evening we were touring a guest around campus (understand that classes are not currently in session); it was 6:30 p.m. and one of the "maker labs" was filled with students working together on several robots, some of which were to be entered into national competition. This was not an assignment but a voluntary club.

Passion. Opportunity. Innovation. Success. These energize all of us. I treasure every day at Embry-Riddle and I know that many of you have felt the same way during your experience here. Being here every day, I'm now excited by the sound of low-flying airliners and Embry-Riddle's own training aircraft as they take off from Daytona International over the university. It only gets better and will continue to do so. Please keep connected with your extraordinary university!

Sincerely,

Dr. Karen A. Holbrook
INTERIM PRESIDENT



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CHECK OUT THE LIFT WEBSITE!

Read *Lift* on your desktop, tablet or phone, and get immediate access to video and other web extras.

Lift.erau.edu

ON THE COVER: Aviation industry leaders C. Jeffrey Knittel ('80, DB), left, and David McKay ('77, DB) are pictured outside the New York Stock Exchange on Wall Street in New York City. Photo by Michael Paras.

CHATTER

ALTIMETER: HIGH POINTS AT EMBRY-RIDDLE

The Daytona Beach Campus Riddle Racers Gold team consisting of pilots **Emmy Dillon and Abbie Pasmore** ('15, DB) placed first in the collegiate division and first overall in the all-women 2016 Air Race Classic. This marks the first time an Embry-Riddle team has taken first place in both categories.

Anne Boettcher, director of Embry-Riddle's Undergraduate Research Institute and Honors Program at the Prescott Campus, was elected to serve as president of the Council on Undergraduate Research for 2017–18.

Embry-Riddle was ranked **No. 11 by College Choice for 2016 Best Bachelor's in Engineering** Degree Program.

Navy ROTC Midshipmen 1st Class **William Orsborn** ('16, DB) and **Adam Guy** ('16, DB) were named No. 1 and No. 3 by the NROTC, respectively, in the nation, and given the first and third options to select their ship assignments. This is the first time Embry-Riddle NROTC has had midshipmen ranked in the top 10. Rankings are based on GPA, aptitude scores and physical fitness assessments.

Embry-Riddle researchers led by Professor William Engblom received one of eight \$500,000 NASA Innovative Advanced Concepts Program Phase II grants.

Embry-Riddle's Daytona Beach Campus was designated a **National Center of Academic Excellence in Cyber Defense Education** (with a focus in secure software development) by the National Security Agency and the Department of Homeland Security.

Board of trustees starts search for a permanent leader

In its ongoing search for a permanent president to fill the opening created by the retirement of John Johnson in 2015, the Embry-Riddle Board of Trustees named Karen A. Holbrook, a member of the board since 2007, interim university president. Announced at the board's March 25, 2016, meeting, Holbrook will serve in this role during an executive search for the sixth university president.

John R. Watret, who served as interim university president from June 2015, stepped down from the role. On May 1, he was named the Worldwide Campus chancellor, a position he has held in the past. Brad Sims, who had been the Worldwide Campus chancellor since January 2015, is now chief academic officer at the Worldwide Campus.

"Dr. Watret has demonstrated his executive leadership skills throughout the past nine months. We will consider his experience and

proven track record at Embry-Riddle; however, we must continue our due diligence to ensure that we have chosen the absolute best person to lead our university to the next level," says Embry-Riddle Board Chairman Mori Hosseini (HonDoc '13; '78, '79, '82, DB).

As an Embry-Riddle trustee, Holbrook has served as chair of the Academic Committee and is a member of the Committee on Trustees and the Executive and Investment committees. She currently serves as senior adviser to the president of the University of South Florida. Read more about Holbrook: erau.edu/administration/president/dr-holbrook-bio.

Trustees, faculty, staff and students will serve on a presidential search committee, and Hosseini will oversee the group. Following the conclusion of the search, Holbrook will return to the board of trustees.

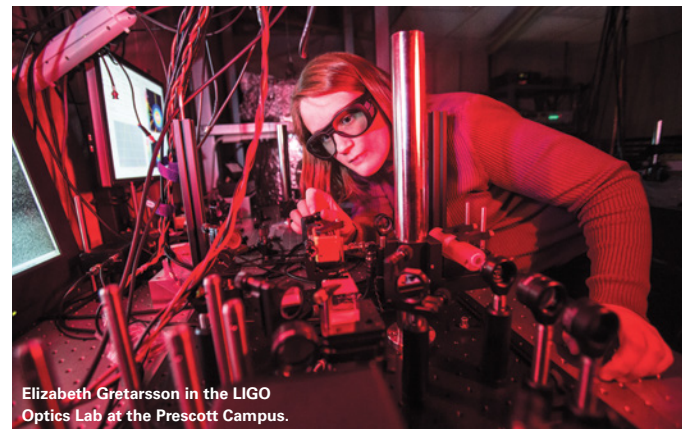
—Mary Van Buren

Einstein was right: LIGO group plays key role in landmark discovery

On Sept. 14, 2015, scientists observed for the first time ripples in the fabric of space-time called gravitational waves. Embry-Riddle professors and several students from the Prescott Campus Laser Interferometer Gravitational-Wave Observatory (LIGO) group were deeply involved in the discovery, which researchers agree records the final fraction of a second of the merger of two black holes—and confirms a major prediction of Albert Einstein's general theory of relativity. The collision of two black holes had been predicted but never before observed.

"Think of space as a symphony. Astronomy, the study of light in space, has allowed for the observation of this symphony; now, with gravitational waves, we can hear the symphony," says Michele Zanolin, professor of physics at Embry-Riddle's Prescott Campus and principal investigator for the Embry-Riddle LIGO group.

The gravitational waves were detected by both of the twin LIGO detectors, in Livingston, La., and Hanford, Wash. The LIGO Observatories are funded by the National Science Foundation (NSF). They



Elizabeth Gretarsson in the LIGO Optics Lab at the Prescott Campus.

were conceived and built and are operated by Caltech and MIT.

Announced in February 2016, the discovery is credited to the LIGO Scientific Collaboration (LSC), which includes the GEO Collaboration, the Australian Consortium for Interferometric Gravitational Astronomy and the Virgo Collaboration. A developer and user of the algorithm that first observed the event, Zanolin coordinates the supernova subgroup of the LIGO and Virgo collaborations.

The LIGO Group

The gravitational wave astrophysics group at the Prescott Campus is the only LIGO group in the

four corners states (Arizona, Colorado, New Mexico and Utah). Established in 2005, it has been continuously supported by the NSF since 2006. The group consists of Zanolin; Andri Gretarsson, founder of the group and professor of physics; Brennan Hughey, assistant professor of physics; Ph.D. student Marek Szczepanczyk; plus undergraduate students.

—Jason Kadah



LISTEN

To the "chirp heard round the world," the sound created by the merging of two black holes: <http://lift.erau.edu/LIGO>.

DAVID MASSEY

Golden Eagles are national champs X 10

Embry-Riddle's Prescott Campus Golden Eagles Flight Team bested more than three dozen university competitors to capture its 10th championship at the 2016 National Intercollegiate Flying Association (NIFA) Safety and Flight Evaluation Conference (SAFECON) competition.

Held May 9–14 this year at The Ohio State University, the competition brings together collegiate aviation teams from around the United States to compete in flight and ground events such as navigation, computer accuracy, preflight inspection and more.

Prescott's Golden Eagles also won the coveted Judges Championship Trophy and the Ground Events Championship Trophy. Overall, the Golden Eagles and individual team members finished in the top 10 in 17 categories.

"Embry-Riddle is very proud of our Golden Eagles Flight Team," says Prescott Campus Chancellor Frank Ayers. "Competing against the top 40 collegiate aviation programs in the country, these amazing young men and women cemented their record as the winningest flight team in the nation over the last 20 years [since 1993]."

The Golden Eagles team is led by Coach Bertil Aagesen, Assistant Coach Alex Johnson ('15, PC), team captains Victor Griffin ('16, PC) and Sam Morris, and mechanic Farrell Harris. The team is also supported by a host of donors, who contribute to the maintenance and enhancement of its competition aircraft, two Cessna 150s: Eagle One and Eagle Two. These include Frank Mayne, Greg



The 2016 National Championship Golden Eagles Flight Team

and Christina Fisher, John and Lynne Thelan with matching gifts from Costco Wholesale Corp., and Diane McClelland.

Also competing at this year's event was the Embry-Riddle Daytona Beach Campus Eagles Flight Team, which placed sixth overall. The Eagles team earned the Competition Safety Award, and placed in the top 10 in 15 categories, including the top spot in Women's Achievement Award for team captain Emmy Dillon. In June, Dillon earned first place in the collegiate division and first overall in the 2016 all-women, cross-country Air Race Classic along with co-pilot Abbie Pasmore ('15, DB).

—Melanie Hanns

Asia Campus celebrates five-year mark

This year Embry-Riddle's Asia Campus in Singapore marks its fifth year of providing solutions for the region's growing workforce needs. Launched in January 2011, to date the campus has graduated more than 200 new aerospace leaders. Embry-Riddle Asia has seen a surge in enrollment from 20 students five years ago to more than 500 today and growing.

"By working closely with partner institutions based in Singapore like the Singapore Aviation Academy and ERC Institute, Embry-Riddle Asia

delivers doctoral, master and bachelor degree programs with both part-time and full-time options," says Graham Hunt, head of Embry-Riddle Asia. "In addition, the university has



established an advisory board encompassing high-profile leaders in Southeast Asia to ensure our degree programs and graduates meet industry needs."

Ninety years of innovation has earned Embry-Riddle a solid reputation as the world's leader in aviation and aerospace education, says John R. Watret, chancellor of Embry-Riddle's Worldwide Campus. "Our long and prestigious history was built on a bold vision and responsiveness to a dynamic industry—key factors in our decision to create Embry-Riddle Asia."

—Melanie Hanns

BY THE NUMBERS

Training Business Leaders



50

Years since Embry-Riddle started offering its first business courses leading to a B.S. in Aviation Management (1966–2016)



3,800-plus

Students have received instruction from Thomas Tacker, Ph.D., the longest-serving, tenured full professor in the Daytona Beach Campus' College of Business (1988–present)



6,000-plus

Graduates have earned business and management degrees from Embry-Riddle's Daytona Beach Campus

FEEDBACK

FROM THE EDITOR

The spring 2016 *Lift*, Off the Page event featuring aviation cybersecurity faculty and alumni experts was a great success. If you missed it, watch it here: lift.erau.edu/videos-fall-2016.

On another note, the 2016 *Lift* Readership Survey is now complete. To those who took the time to share your insight, thank you. The survey indicates that by and large, you're pleased with *Lift*: 62 percent say they read most or all of each issue and 70 percent keep *Lift* for up to—or more than—30 days. Most (58 percent) still prefer the print edition, but a growing number (27 percent) like the option of reading both the online and print editions.

And 80 percent of respondents agree or strongly agree that *Lift* strengthens their personal connection to their alma mater. We think that says a lot.

We appreciate your suggestions for future topics and ways to improve *Lift*, as well. You can view more comprehensive survey results here: lift.erau.edu/2016survey.

—SARA WITHROW, EDITOR

Aviation Vulnerabilities Are Real

I read the article *Open Season?* [spring 2016] on aircraft cybersecurity with interest. I spent 27 years with Boeing and retired in 2010. I started working with Thompson Aerospace about three years ago.

Thompson is unique and approaches aircraft data as a holistic issue. It patented the first aircraft LAN, making the aircraft a node in the internet. Cybersecurity was a major factor. Security was considered the most important element and Thompson designed the first hardware security modules to manage all aircraft data both onboard and aircraft to ground. The industry has basically ignored these advances. We are at the forefront of data security and exceed RTCA

DO-326, DO-355 and DO-356. I thought the article was right on in highlighting the vulnerabilities.

Craig Jones ('77, DB)
B.S. Aeronautical Studies

Kudos for Lift, Off the Page

Thank you for putting this presentation [*Lift*, Off the Page: Aviation Cybersecurity] together and making it available to those of us who could not view it live. I was finally able to watch it and really enjoyed it. It was very enlightening and educational.

Jack Glowen ('12, '14, WW)
Certificates, Aviation Safety and
Aviation Maintenance Technology



The 2016 *Lift*, Off the Page event featured a lively discussion on cybersecurity.

The Harvard of Aviation

Lift is a great read for past, present and future graduates. The stories are powerful and remind us why ERAU is considered "The Harvard of Aviation." Keep up the good writing.

Frank J. Donohue ('85, DB)
B.S. Aeronautical Science

Double Taxation Is Troublesome for International Pilots

I am a fortunate beneficiary of an Embry-Riddle education. I am a pilot with Cathay Pacific Airways in Hong Kong and have been for the past five years. This letter addresses the taxation issues faced by U.S. pilots based overseas. As a U.S. citizen working in a foreign country, I have to pay both U.S. income taxes and income taxes assessed by the country in which I live and work (about 17.5 percent for China). There is an IRS foreign earned income exclusion (up to \$100,800 for 2015) for U.S. citizens who meet certain criteria; however, anytime I fly over international waters, this exclusion cannot be applied and I am taxed as if I'm working on U.S. soil. The only way to avoid this problem is to request flights over foreign countries only. Being an American pilot overseas, I also do not receive tax benefits for any retirement fund that I participate in through my company, since the United States does not recognize retirement funds established in other countries.

This is a real problem and will definitely affect any Riddle graduates who seek employment overseas. To my knowledge, America is the only country that practices such taxation on its overseas citizens. For more information on U.S. tax law for pilots working overseas, visit: <https://www.irs.gov/businesses/u-s-citizens-performing-services-in-foreign-and-international-airpace>.

Eric Hooper ('10, DB)
B.S. Aeronautical Science

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.

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IN OTHER WORDS

Apollo 1 Remembered

BY GERALD W. ZIMMERMAN ('58, MC, NON-DEGREE)

In the 1960s, I found myself entrenched in the U.S. effort to send a person to the moon. An employee for North American Aviation (NAA), later NAA Rockwell, a NASA contractor, I was introduced to Project Apollo as a senior spacecraft electronic technician working on the launch escape and earth landing systems at White Sands Missile Range (WSMR), N.M. Later, I transferred to Cape Canaveral, Fla., Kennedy Space Center (KSC), and became the launch team supervisor for Apollo 1.

Jan. 27, 1967

This is still hard for me to write about, to relive it even after all these years, when three men, Virgil "Gus" Grissom, Edward White and Roger Chaffee—America's best, brightest and bravest—died. In addition, there were several technicians and supervisors, good people, who died of heart attacks and aneurysms. I don't know why the good Lord did not take me too.

The day started out like most any other with tests being run, and this day the three astronauts were suited up and put in the space capsule. The hatch was installed and oxygen was being supplied to both the suits and the spacecraft. It was to be pressurized to 1 atmosphere, approximately 15 psi above the outside pressure, with pure oxygen. Shortly after this, Gus Grissom started having trouble with his communications with mission control. He became somewhat upset and started to replace his cobra cables, which required him to move around inside the craft. These cables, which supplied oxygen to the spacesuits, also had the communication wiring, plus biomedical monitoring systems. It was shortly after this that all hell broke loose.

A flash fire erupted inside the spacecraft, which simultaneously built up pressure exceeding the structural pressure limit of the craft. It ruptured to the right side as viewed from the hatch looking in. A large ball of fire came out into the white room across the pad leader's desk and mine. I was not there at the time. Ironically, I was in Cocoa Beach, a few miles south, attending a safety meeting.

My lead men, God love them, escaped to the catwalk; but as soon as humanly possible, they came back in and removed the outer hatch. When the lead men looked in, it was dark—burnt black. They saw no signs of life and told me



Gerald Zimmerman

this. These lead men had on white nylon smocks that were burnt in places, but still they went back to try to save the men inside.

Grant Them Peace

For some reason, I was assigned to head up the technical support team to disassemble the spacecraft after the astronauts' bodies were removed.

The first thing we did was to remove as much of the spacesuits, etc., as we could from the hatch. Then, the three couches were carefully removed, trying not to disturb anything else. This task fell to two of my top mechanical technicians. One of them said he did not think he could go into the burned out spacecraft, as there were some of Chaffee's suit and body pieces in there still, since the ball of fire passed across his area when it exited the craft like a blowtorch. So I took both of them on a break for coffee and told them if they couldn't do it, I would have to go in myself, and with my weak stomach there would probably be more to clean up. They went in. Thanks, guys.

Ultimately, the spacecraft was removed from the pad and taken to the pyrotechnic building, an isolated area with limited access. The astronauts' bodies were taken there also, along with the spacesuits. This area was refrigerated like a morgue and remained that way for quite some time, even after the funerals of the crew members—Grissom, White and Chaffee. My God, grant them peace! What great men!



The Apollo 1 crew, from left: Virgil 'Gus' Grissom, Edward White and Roger Chaffee

EDITOR'S NOTE: Excerpted from *The Life and Times of Gerald W. Zimmerman* and reprinted with the author's permission. A 1958 graduate with an airframe and powerplant (A&P) certificate from the Embry-Riddle School of Aviation in Miami, Fla., Zimmerman completed the A&P program with a 96.7 accumulated GPA, the highest score ever at that time at the school.

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.

(Rep)air Worthy

Historic student-powered engine overhaul station keeps the Embry-Riddle fleet flying

BY ALAN MARCOS PINTO CESAR

Whenever a training airplane fires up on the Embry-Riddle Daytona Beach Campus flight line, chances are good that its engine was assembled by one of the students in the aviation maintenance science (AMS) program. It sounds dicey—pilots-in-training relying on engines built by mechanics-in-training—but it's been the Embry-Riddle way since 1956.

Embry-Riddle is the only school in the world where students work on piston-powered aircraft engines as non-certificated employees of a Federal Aviation Administration (FAA)-certificated engine repair station. The late Chandler Titus, professor emeritus and the university's longest-serving employee (1953–2006), established the certificated repair station 60 years ago at Embry-Riddle's then School of Aviation in Miami, Fla. Originally certified by the Civil Aeronautics Authority, the governing body that preceded the FAA, Titus' primary goal was to improve training by giving students real-world experience, but the repair station

also helped reduce the overhaul costs for the fleet.

University Archivist Kevin Montgomery says the applied learning put into practice by Titus was important in establishing the school as an institution of higher learning and worked to perpetuate the philosophy of its early founders. "Embry-Riddle's co-founder John Paul Riddle

believed that in order to be a proficient pilot, you had to understand your machinery. He was an aviation mechanic before he became a pilot, and all early flight students had to do their own maintenance as well," Montgomery says.

Program Heyday

In the decades that followed, aviation maintenance science grew into the biggest academic program on campus. With Titus as the repair station manager, students would process 100 percent of the engines from the training fleet as well as all of the alternators, starters, magnetos and carburetors, says Roger Sonnenfeld ('86, DB), AMS repair station operations lead instructor and engine repair station manager at the Daytona Beach Campus.

"Work orders per year were in excess of a thousand. We used to have three sections of engine overhaul class, five days a week," Sonnenfeld says. "They were staggered, so while one was in the classroom, the other was in the repair station."

Today, students overhaul 15 to 20 engines annually from the training fleet, roughly 80 percent of the flight training department's demand. The rest are sent to an outside repair company.

Eric Walterscheid, a current AMS student, says he and his peers spend many hours learning about

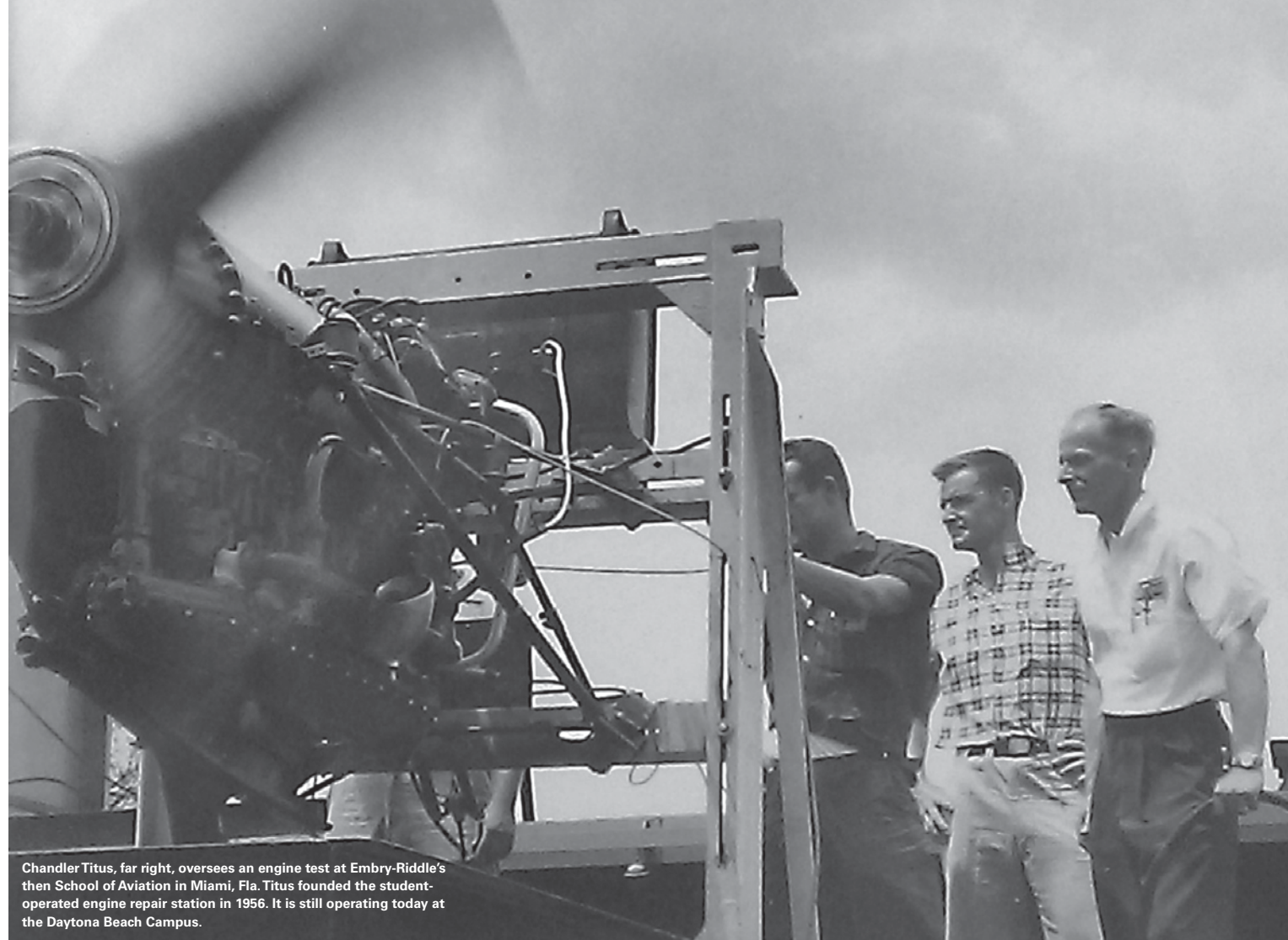
engines before entering the repair station. "It was a little shocking, knowing that I'd be working on engines for the Cessnas and Diamonds that students would be flying. It gives me a sense that I need to perform very well. But with the supervision and guidance of our crew leader and inspector, I believe I'm very capable of working on airworthy engines."

Safety First

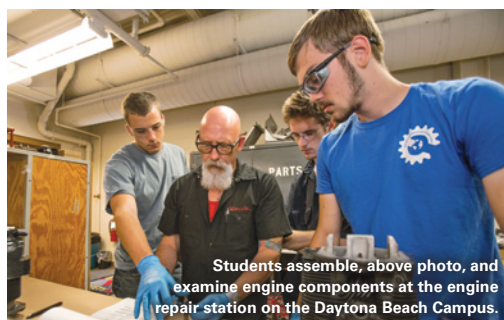
Sonnenfeld is confident that the safety of Embry-Riddle's nascent pilots and flight instructors is not compromised by the course, which is mandatory for the AMS degree. All of the work students perform is supervised by repair station inspectors—the repair station employs several. An inspector must sign off before engines or other components are returned to inventory for Embry-Riddle's training fleet, just like at any other repair station.

The facility is regularly audited by a Flight Standards District Office (FSDO) inspector. "The FSDO inspector doesn't cut us any slack just because they're students," Sonnenfeld assures. "They're expected to perform at the same level as anyone in the field. We've never had an accident, fatality or any other incident with our aircraft due to an engine overhaul problem."

Students who complete their airframe and powerplant certifications and show exceptional skill can serve as crew leaders for the repair station, gaining valuable work experience while they complete their bachelor's degrees. "Those students get snatched up pretty quick [by employers]," Sonnenfeld says. ✨



Chandler Titus, far right, oversees an engine test at Embry-Riddle's then School of Aviation in Miami, Fla. Titus founded the student-operated engine repair station in 1956. It is still operating today at the Daytona Beach Campus.



Students assemble, above photo, and examine engine components at the engine repair station on the Daytona Beach Campus.

Chandler Titus Remembered

Professor Emeritus Chandler Titus, whom students affectionately called "T," was actively involved in student life, which included serving as faculty adviser of the Daytona Beach Campus' diving club. "When I was a student, my brother and I would go diving at least a couple times a month with T and other repair station employees in Blue Springs, Deleon Springs and occasionally in Alexander Springs," says Chuck Horning ('86, '11, DB), aviation maintenance science (AMS) department chair.

Titus was known for his dry sense of humor, and for telling outrageous stories that contained a ribbon of truth. "I never did catch him in a lie," says Roger Sonnenfeld ('86, DB), AMS repair station operations lead instructor and engine repair station manager. Sonnenfeld, who started working full time for Titus at the repair station after graduating in 1986, has fond memories of his longtime boss. "He and I worked together five days a week for 20 years. We were friends," he says. What's more, Titus was a valuable resource. "He'd been working with general aviation reciprocating engines for decades, and had a vast depth of knowledge of these engines going back to just after the war. He was a treasure trove of historical knowledge," Sonnenfeld adds.

Titus stepped down from the engine repair station manager post in 1995, but continued to work as an inspector until his retirement in 2006. At his 50th anniversary of working at Embry-Riddle, Titus was honored with his own parking space. He was the first faculty member to be honored in this way. In all, he worked for 53 years for Embry-Riddle, witnessing its transition from an aviation school to an aeronautical institute, and ultimately to a fully accredited university.

Many alumni recall Titus' unusual attire: leather boots and pants. He insisted that leather was cooler in the summer than denim, Horning says. Even alumni who don't remember his name still ask about "that guy with the leathers."

Titus' expertise in the field earned him the Federal Aviation Administration's Charles Taylor Master Mechanic Award. A display outside the engine repair station in the Emil Buehler AMS building at the Daytona Beach Campus honors his accolades and his decades of service. Titus died in 2010.



LISTEN

The late Chandler Titus discusses the history of the aviation maintenance science program at Embry-Riddle in an oral history recorded in 2004 as part of the Embry-Riddle Heritage Project: lift.erau.edu/repair-worthy.

Mr. Airspace

Seboseso 'Sebo' M. Machobane ('94, PC) is transforming the aviation industry for the better in his home continent of Africa

BY MELANIE STAWICKI AZAM



Sebo Machobane has established more than 100 new efficient and user-preferred route trajectories for the Africa-Indian Ocean airspace. The new route network cuts costs for the airlines and dramatically impacts carbon dioxide emissions.

Seboseso "Sebo" M. Machobane ('94, PC) came to Embry-Riddle to become a pilot, but his people skills and his passion for challenging himself drew him back to his air traffic management roots.

Based in Nairobi, Kenya, Machobane is a regional officer for air traffic management and search and rescue for the International Civil Aviation Organization (ICAO), a United Nations agency. In his current job he promotes ICAO policies, standards, recommended practices and air navigation plans across 24 member states in the Eastern and Southern subregion of Africa.

Machobane says his greatest fear is succumbing to "indifference, when excellence can be achieved."

His fight against this fear fuels his efforts to improve the safety and efficiency of aviation in his home continent.

Reshaping the Airspace

And he's making headway.

Machobane is credited with establishing more than 100 new efficient and user-preferred route trajectories for the Africa-Indian Ocean regional air traffic services (ATS) route network, which includes the continent of Africa and its neighboring islands, and working to get a new ATS route network approved. The new route network reduces the former by 4,797 nautical miles and cuts carbon dioxide emissions by an estimated 144 million metric tons. Machobane's relentless effort to develop the network earned him the unofficial title of "Mr. Airspace" in Africa.

"It took quite a while, because first of all, I had to get an agreement from all the countries involved," says Machobane, who spent five years on the ATS route project, which received final approval in 2015. At times, tensions were high among the various country representatives, he says. "Sometimes the new routes would result in less traffic for certain

airspace, compared to what they used to get," he explains.

There was a lot of red tape to get the new route plans accomplished, but the impact was huge. Some flight routes are shorter by 200 miles, Machobane says. "When multiplied over the course of a day, flight changes like that can make or break an airline. There are lots and lots of savings," he says.

It wasn't easy, though. Machobane had to deal with high staff turnover in other countries, a lack of follow-through, differing priorities and meager resources.

"Aviation in many countries is not a priority; if they have a penny, you can be sure it is not going anywhere to aviation," Machobane says. "Or they have different priorities. You may say invest in safety, but there is no big return there."

He accepts that politics and bureaucracy are a part of the ongoing process to make needed improvements, but he doesn't let them defeat him. "I can be pretty stubborn," he admits. "If I think something is going to work, I won't back off. People know this guy is never going to give up."

Taking Flight

That determination has driven Machobane throughout his career. South African but raised in Lesotho, he became interested in aviation as a child, after a pilot showed him his Cessna airplane during a visit to an airport.

"I was 8. It was fascinating," recalls Machobane. "I always wanted to do something not many people get to do."

His plans to become a pilot did not initially work out. He was trained in Nigeria in air traffic control in 1979. He then went on to work as an air traffic controller for more than a decade in Lesotho.

Unable to kick his desire to fly, Machobane was in his mid-30s with a wife and two young children when he enrolled at Embry-Riddle in 1991. Attracted by the multi-engine flight program offered at the Prescott Campus, he relocated halfway across the world and sacrificed the comforts of home and family to earn an aeronautical science degree. "It was something that I always wanted to do. So I told myself I was going to work like crazy and get my degree done," he says.

Dave Roy ('88, PC), Machobane's first flight instructor at the Prescott Campus, remembers he was a model student. "He always kept his focus, even though his family was 10,000 miles away in Lesotho," Roy says.

One of Machobane's biggest mentors, Bob Sweginnis, was also his academic adviser at Embry-Riddle. An aerobatic pilot, Sweginnis died in an airplane accident in 2004. "I really appreciate him for imparting his knowledge," Machobane says of Sweginnis. "The whole science behind flight—this guy could explain it in the best way that I could understand it."

Although he does not fly himself anymore, Machobane says the education he received at Embry-Riddle gave him a wide-ranging knowledge of aviation that he uses daily. "I've been on both sides, so I have a very comprehensive understanding of both [piloting and air traffic management]," he says.

Committed to Improving African Aviation

After graduating from Embry-Riddle, Machobane worked as a flight instructor at Central Missouri State University while earning an M.S. in Aviation Safety and an M.S. in Industrial Safety Management.

He then returned to Africa, where he became the commissioner of civil aviation for South Africa, before joining ICAO in 2006.

Roy, who is now the director of communications and safety at Guidance Aviation in Prescott, has followed his former student's career at ICAO with pride. Machobane has overhauled the African route network to make it more efficient, mediated airspace disputes, analyzed air traffic control incidents and improved airspace safety, he says. He also helped initiate a process of education and training leading to the implementation of Performance-Based Navigation. "Sebo represents an exceptional level of commitment to the aviation and aerospace industry," Roy says.

As he reflects on his career, Machobane says he is happy to have achieved positive change for aviation in Africa. "What I enjoy most are the results. That is the most satisfying thing," Machobane says. "I enjoy looking back and seeing the improbable achieved."

EDITOR'S NOTE: Machobane is the recipient of the 2015 Embry-Riddle Alumni Achievement Award.

"I enjoy looking back and seeing the improbable achieved."

—SEBOSESO 'SEBO' M. MACHOBANE ('94, PC)

Embry-Riddle students are improving the bottom line at businesses around the globe and getting a priceless education in return. In select business classes at both the Prescott and Daytona Beach campuses, the typical textbook case study is replaced by a real-world consulting project that exposes students to all the intricacies and challenges that a classroom can't.

This isn't just for the students' benefit: Businesses reap rewards when someone reviews their operations from the outside. Whether it's analyzing the use of office space, assessing operational logistics or exploring an entirely new business model, Embry-Riddle student consulting groups provide tangible results.

Prescott Campus business students working with Drake Cement in spring 2016 found ways to make better use of its facility in Paulden, Ariz. Drake sells its cement powder by the truckload, and the truck traffic through the facility was having problems: backups during rush times and trucks stopped on train tracks.

The student team's analysis showed that rerouting trucks through the facility, installing a series of lights to direct drivers and incorporating a few other improvements could cut the truck throughput time in half. Drake is preparing to put these ideas to use. "Our supervisor in that area thought it was a great solution. We're looking at implementing it to make that side of the operation more efficient," says Linda Mitchell, human resources manager at Drake Cement. Drake has two more consulting projects scheduled with student teams for the fall semester.

MOVING THE BOTTOM LINE UP

Students boost business efficiencies with pro bono consulting work

BY ALAN MARCOS PINTO
CESAR

A student consulting team from the Prescott Campus recently helped streamline operations at the Drake Cement company in Paulden, Ariz. Pictured, from left, are Jim Bayze, Zac Greenman, Jennifer Baltimore, Professor Rick Gibson and Scott Castillo.



The Wild West Approach to Learning

About 50 undergraduate students each semester take courses at the Prescott Campus where consulting with an outside company is part of the grade. William Cheek, former business department chair at the Prescott Campus, credits Assistant Professor Rick Gibson for cementing these projects to the curriculum starting in the late 1990s. Gibson relied on the Small Business Development Center at Yavapai College to secure the university's first business clients, but now a variety of companies routinely request student consulting teams.

Gibson takes a Wild West attitude to guiding students through the consulting projects: Teams work



Far left: Seniors Jim Bayze and John Ford, with a Drake Cement employee, review operations at the control center at Drake Cement in Paulden, Ariz. Near left: Student Lena Dworschak, right, with Embry-Riddle alumnus Harley Moulder ('12, WW), senior analyst long range maintenance planning, technical operations, at Southwest Airlines.

Grumman and ENSCO Avionics. "Recent research done for ENSCO was used as a basis for a strategic business decision. And a product developed for Northrop Grumman is in use at this time," Longshore says.

The primary benefit for students is in the intricacies of applying their knowledge. "We had to learn how to deal with frustrations that arise during the project when not everything seems to work out right away. It was also valuable in the sense that sometimes two parties think they talk about the same thing, but actually there are discrepancies," says Lena Dworschak, an MBA student who worked on a maintenance scheduling model for Southwest Airlines.

Of course, a strong work ethic is a prerequisite, says Massoud Bazargan, associate dean of research for the College of Business. His classes often involve working with the airline and aviation industries. A recent student analysis of a dual-ramp concept showed that deplaning and boarding time could be cut by 10 minutes on average. "For every minute a plane sits on the ground, airlines lose money," says Dynamite Obinna, the student research lead for the Aerobridge project. "Over the course of a year this could save airlines millions of dollars, and it would also improve service for passengers."

"We gave him the tools," Bazargan says, "and now he can present his research to potential investors."

The amount of work for students engaging in consulting/research projects can be triple that of a regular class. "But for those who come, it's not just for a grade. They know what they're getting into, and they enjoy the challenge of working on real-world projects," Bazargan says.

At the Daytona Beach Campus, consulting can also pay. Small groups or individuals working on a project might receive a paycheck. "This is as close to the real world as you're going to get," Longshore says. 🌟

mostly independently, and they can choose to fire underperforming members. "They've learned the concepts. I don't micromanage them; I'll let them crash and burn. The responsibility adds gravity to the project," Gibson says.

Costco Wholesale, which rarely hires outside consultants, has worked with Embry-Riddle students on four projects in the past. Though it prefers to keep internal operations close to the vest, John Thelan, senior vice president of depot operations, says letting in high-caliber Embry-Riddle students has been a worthwhile exception. "When you're in the trenches day in, day out, you tend to look at the world in a certain way. Bringing in students who are hard charging and well educated, you get fresh facts, a fresh outlook. It's a win-win situation."

Typically, the student team researches an issue and solutions for it, meeting with company representatives as needed throughout the semester. The work culminates in a formal presentation near the semester's end. "Presenting results can often be stressful, especially when you have to deliver bad news," Gibson says. "Sometimes you have to look at the person who hired you and tell them, 'You're the problem.' A lot of students go to client meetings scared to death. That's good experience."

Al Garofalo ('16, PC), a team leader on one of the Costco projects, says the company's representatives were surprisingly receptive. "A few minutes into our presentation, they realized that we knew a lot about their business and gave us a lot of respect for that. I give a lot of credit to Professor Gibson, who taught us how to be authentic with the client," he says.

Garofalo's team developed and tested software for tablet computers to track inventory at a Costco shipping depot. Gibson says the team's projections showed the technology could improve truck unloading times by as much as 30 percent in some cases.



Prescott Campus students, from left, Lucas Mackey, Jessalyn Hernandez, Carsen Cooper and Chad Kibler studied operations at the Costco Wholesale distribution center in Tolleson, Ariz., this past spring.

"A few minutes into our presentation, they realized that we knew a lot about their business and gave us a lot of respect for that. I give a lot of credit to Professor Gibson, who taught us how to be authentic with the client."

—AL GAROFALO ('16, PC)

An Extension of the Industry Advisory Board

At the Daytona Beach Campus, outside consulting has been a part of the College of Business since the Industry Advisory Board was created in 1991, but activity has increased in the last four years, says Mike Williams, dean of the College of Business. Student involvement is less formalized: There are many classes where students can be involved in industry work.

Each faculty member looks for opportunities within his or her professional network—many faculty previously worked in industry—and discusses these opportunities with their colleagues to find the class that best fits each project. "We grow organically. Our reputation has brought additional projects in. It's a characteristic of the college now," says Professor John Longshore, who has brought in repeat work from companies like Northrop

A Winning Business Streak

Embry-Riddle's Prescott Campus Phi Beta Lambda (PBL) team earned its 10th straight victory at state competition this past April, and it finished first in Economic Analysis and Decision-Making at the PBL National Leadership Conference in Atlanta in June. PBL is the collegiate division of Future Business



Seven of the 14 students who competed at the national PBL conference celebrate their accomplishments. Pictured, from left, are John-Michael Linares, Jacob Curl, Trent Marlow, Nicky Ho, Monica Gomez, Zac Greenman and Andy Lamunyon.

Leaders of America, which boasts more than 10,000 members and 500 chapters worldwide.

"This level of performance confirms the high quality of our students, the strength of our business programs and the amazing capabilities of our Embry-Riddle faculty," says Robin Sobotta, business department chair at the Prescott Campus.

Nationally, the business team competed in 17 events. In addition to winning first place in Economic Analysis and Decision-Making, students had third-place national finishes in International Business and Computer Applications; and placed fourth in Forensic Accounting, sixth in Accounting Professionals, seventh in Strategic Analysis & Decision-Making, eighth in Cybersecurity and ninth in Business Law.

At the 2016 PBL State Leadership Conference, Prescott Campus students racked up the largest number of first-place finishes (43) and the largest number of total awards (88 first, second and third places).

SOUTHWEST: SOUTHWEST AIRLINES; OTHERS: A STORYBOOK MOMENT PHOTOGRAPHY

A photograph of two men, David McKay and C. Jeffrey Knittel, standing in front of the Manhattan skyline and the Manhattan Bridge. They are both wearing dark suits and ties. The man on the left is wearing glasses and a blue patterned tie, while the man on the right is wearing a red tie. The background shows the bridge and the city skyline under a cloudy sky.

EXECUTIVE CLASS

David McKay ('77, DB) and C. Jeffrey Knittel ('80, DB)—who share the same hometown and a passion for flight—have been instrumental in shaping aviation finance and insurance

BY DAVID MCKAY WILSON

PHOTOS BY MICHAEL PARAS

Two titans of the aviation business world—David McKay ('77, DB) and C. Jeffrey Knittel ('80, DB)—grew up in suburban Philadelphia, enthralled by the mystery of flight and inspired by the aerospace heroes of the 20th century.

They traveled south to Embry-Riddle and both eventually established their niche in aviation's financial sector, using their business savvy to aid in the industry's growth over the past three decades. Knittel, president of CIT Transportation Finance, today presides over a \$20 billion diversified transportation finance organization that includes a fleet of about 350 leased aircraft. McKay is chairman and CEO of United States Aircraft Insurance Group, known as USAIG, one of the world's largest insurers of business, commercial and fractional general aviation aircraft. In fact, USAIG insures a number of aircraft operators and manufacturers whose planes are leased by Knittel's company.

McKay and Knittel didn't know each other on the Daytona Beach Campus of Embry-Riddle. But they crossed paths some years later, while midlevel executives, at The Wings Club, the aviation industry's premier social club in Manhattan, N.Y. As they rose up in the industry, they made deals with many of the executives they met for lunch in The Wings Club's restaurant on the eighth floor of an office building in midtown Manhattan (see sidebar).

In spite of their success, they've never forgotten their Embry-Riddle roots. Under their leadership, USAIG and CIT have joined The Boeing Company, United Airlines and Frontier Airlines in Embry-Riddle's Business Eagles program, which facilitates interactions between industry partners and Embry-Riddle students, providing those essential contacts for graduates as they seek opportunities in the aviation marketplace. Having an aviation background can give job applicants a leg up when seeking employment in the industry's financial side.

"When we reached out to the industry, David McKay responded lickety-split," says Bert Zarb, professor of accounting at the Daytona Beach Campus. "He has been extremely supportive of the program, which opens a pipeline for our students to speak with the captains of industry."

At his corner office in the financial district at the southern tip of Manhattan, where he can hear the throb of helicopters from the nearby helipad, McKay says that he continues to look to Embry-Riddle when his company has an opening.

"Embry-Riddle students are passionate about the aviation business," says McKay, who has influenced the curricula at Embry-Riddle through his participation on several industry advisory boards. "We tell them if they love aerospace now, they'll love it in 40 years. And we've found that it's easier to teach insurance to those passionate about aviation than to teach aviation to those breaking into the insurance field."

“I worked with former fighter pilots from the military. I made the case that I could do it because of my academic experience at Embry-Riddle.”

—DAVID MCKAY

Knittel, who has previously served on Embry-Riddle’s Board of Trustees and established an endowed book fund for Embry-Riddle students, says he’s committed to helping develop the next generation of aviation industry executives.

“It’s important to give the people, who 20 years from now will be making a difference in our industry, the opportunity to meet with today’s leaders,” he says. “It gives them a chance to listen to views, hear the counterviews and form their own thought process.”

Knittel and McKay are undeniably two of the leading figures in the aviation industry today. Here’s how they got there.

An Itch for Flying

Growing up in suburban Philadelphia in the 1960s, McKay recalls waiting with great excitement for the latest edition of *National Geographic*, which at the time chronicled the exploits of test pilots such as Scott Crossfield, who flew the X-15 to hypersonic speeds. His passion for flying deepened after his first exposure to primary flight training at nearby Wings Field, where Knittel also had his first up-close look at airplanes.

At Embry-Riddle, McKay started off in aeronautical science. But he was itching to get up in the air, so he transferred into the professional pilot program, which allowed him to obtain his ratings more quickly.

Then he joined the Aviation Reserve Officer Candidate program, which enhanced his expertise and his connection to the U.S. military.

He had his heart set on landing a flying job upon graduation in December 1977 and living the pilot’s life. But entry-level job openings were scant, with fighter pilots returning from Vietnam and experienced airline pilots in no mood to retire.

“There just weren’t a lot of flying jobs,” McKay says. “If I’d persevered, I would have gotten an airline job, but in the meantime, I had to eat.”

So he answered a classified ad in *The New York Times* for a company called Aerospace Management Services International, a subsidiary of USAIG, which was looking for an air safety investigator to work with the National Transportation Safety Board on fatal airline crashes. He was hired and became USAIG’s first employee

from Embry-Riddle. Today, 14 of the company’s 184 employees are Embry-Riddle graduates.

For three years, he combed through the details of 150 fatal accidents for manufacturers, such as Lycoming Engines, Teledyne Continental Motors and Bell Helicopter. His Embry-Riddle academic and flight training provided the background he needed to land the job.

“I worked with former fighter pilots from the military,” McKay says. “I made the case that I could do it because of my academic experience at Embry-Riddle.”

Some of those veterans were still serving in the Air Force Reserve, and through those connections he received his commission as a reserve officer. USAIG granted him a two-year leave to undergo Air Force training, during which time he trained on the

supersonic Northrop T-38 and flew Lockheed C-130 transport planes.

“I’d finally scratched that flying itch,” says McKay, who served in the Air Force Reserve for seven years after returning to USAIG and for many years flew his own Mooney M20J. “After the training, I was ready to develop my career in the aviation business.”

Moving Up the Ranks

Back at USAIG, McKay transferred into its general aviation division, as an underwriter at its Houston office. By 1990, he was back in New York, working in USAIG’s products liability department at a time when some commercial aircraft were aging, many suffering from corrosion. He moved up through the organization, becoming chief underwriter across

Club Connection

In 1942, a group of aviation leaders founded The Wings Club in New York City to help promote aeronautics. Since then, the club has enjoyed the participation of many aviation and aerospace leaders, including David McKay (’77, DB) and C. Jeffrey Knittel (’80, DB). Both have served as club president—Knittel in 2010-11 and McKay, his successor, in 2011-12.

That was a time in which Knittel and McKay transformed the private social club. Knittel expanded the board to include more women and developed programs to attract young professionals. McKay began the process to transform the club into a nonprofit organization dedicated to supporting educational opportunities for college students pursuing careers in

aviation, while continuing to build the aviation community at its monthly luncheons with top industry speakers.

Both remain active, with McKay co-chairing the club’s Development Committee and Knittel chairing its Awards Committee. Two of The Wings Club’s six scholarships in 2015 went to Embry-Riddle undergraduates: \$30,000 to Jonathan Clark and \$10,000 to Matthew Philbin.

“Jeff and Dave are great guys, with big jobs, who are committed to the next generation,” says Tom Fitzsimmons, The Wings Club’s executive director. “They’ve helped change the mission of our group to become a true supporting organization for the field of aviation, and for those aspiring to join it.”



C. Jeffrey Knittel



David McKay

all its insurance lines. He became president and chief operating officer in 2006 and chief executive officer in 2011, and he was named board chairman in 2016.

USAIG, founded in 1928, was the nation's first aviation insurer, and is a wholly owned subsidiary of General Re, which is wholly owned by Warren Buffett's company, Berkshire Hathaway. With 13 branch offices across the United States and Canada, USAIG has the largest footprint of any aviation insurer in North America.

Bruce Whitman, president and CEO of Flight Safety International (FSI), also owned by Berkshire Hathaway, over the past 30 years has seen McKay parlay his keen focus on the mission at hand and healthy sense of humor into a place at the top of the aviation insurance industry. Both Whitman and McKay support twice-a-year simulation training for their customers who operate turbine-powered aircraft, so most of USAIG's customers train at FSI.

“People with a passion about a subject or issue can do great things. Embry-Riddle brings people together who have a love for aviation.”

—C. JEFFREY KNITTEL

“I’ve watched Dave on his way up as he has become an industry leader,” says Whitman, who succeeded McKay as Wings Club president. “He’s disciplined, well-organized, and straightforward. And safety is at the top of his agenda.”

Today, USAIG manages a pool of assets for several unrelated companies, such as Chubb, Liberty Mutual and Hanover Re. USAIG assesses the risk through its underwriting division, does the accounting, and handles claims and litigation for all of the companies in its group.

Rates shot up following the catastrophic events of Sept. 11, 2001, in lower Manhattan, less than a mile from McKay's office. But higher rates sparked competition and drove rates lower. So have historically low interest rates, which have provided a flood of low-cost capital to insurance companies to cover potential losses.

It's good news for McKay's customers, but it has presented challenges for USAIG.

“It forces us to get better,” he says. “To be relevant and survive, you have to reinvent yourself and make sure you are customer-focused. It's easy when it's easy, but we like the challenge when it's hard. If we can do well in this environment, we will do really well when it changes.”

Inspired by the Embry-Riddle Community

Like McKay, Knittel grew up fascinated by airplanes and travel. At Embry-Riddle, Knittel had a concentration in aviation management, which he says provided him the foundation in the aerospace industry and economics. He studied in Daytona Beach in the late 1970s, just as the Airline Deregulation Act of 1978 removed the federal government from its role of setting fares and routes in the U.S. market.

He remembers the speculation about what impact unleashing the private market would have on commercial aviation.

“All the professors were trying to figure out what the industry would look like,” he recalls. “One professor predicted we would end up with three or four strong players [airlines], which would have to get much more efficient. And that's what eventually happened.”

He felt inspired by the Embry-Riddle community and its commitment to aviation.

“My biggest takeaway was that people with a passion about a subject or issue can do great things,” he says. “Embry-Riddle brings people together who have a love for aviation.”

Knittel's enthusiasm for the industry comes through in his leadership style, says CIT Aerospace President Tony Diaz ('80, DB), who has worked under Knittel since 1987, and Damon D'Agostino ('94, DB), CIT Commercial Air's chief commercial officer.

“Jeff is very animated—he's got a large personality,” Diaz says. “At a meeting, he's engaged and expresses his opinion. He'll ask very direct and difficult questions, so you better be prepared. He also appreciates if you show the strength of your convictions. If you push back, he respects that.”

D'Agostino says Knittel's zeal is inspiring.

“When someone is passionate, you want to follow them, and by default, they are therefore great leaders,” he says.

Knittel began his career with Cessna Finance Company, helping finance general aviation aircraft. Instead of a company car to make calls as Cessna's Northeast representative, Knittel piloted a single-engine Cessna 172 to visit regional dealers.

He was then recruited to work for Manufacturers Hanover Leasing Corp., which at the time was the largest bank-owned leasing company in the world. Aircraft leases were among its products, and Knittel dove in.

By 1986, he'd joined CIT Group's capital finance division, where he has held several senior management

positions. He headed up CIT's commercial air leasing business for 10 years, and for the past decade he has expanded his portfolio to run CIT's transportation finance business. This unit provides leases for business and commercial aircraft, railroad companies and the maritime industry.

Among the world's 17,500 commercial aircraft, CIT has 350 in its leased fleet, with another 140 airplanes on order, making it the world's fourth largest airplane lessor, Knittel says. Twin-aisle planes can cost as much as \$200 million, so leasing lets airline companies obtain aircraft with less capital, and it provides the capability to reconfigure their fleets after the first lease expires in eight to 12 years.

Career Capstone

Diaz recalls their early days in the aviation business in the late 1980s, when only about 2 percent of aircraft worldwide were leased. Back then, CIT would buy planes from airline companies and lease them back, or buy planes for other leasing companies. In 1998, CIT placed its first direct orders to The Boeing Company and Airbus.

Today, about 40 percent of the world's commercial aircraft are leased, which provides great opportunities for companies in that finance sector.

“It's a capital-intensive and dynamic global business,” Knittel says. “You need to know how airlines operate, know how airplanes work, understand their value, and have good relationships with the manufacturers. You put it all together and you have a profitable business.”

What happens next for CIT's commercial air leasing division will unfold later this year as the corporation either sells it or spins it off into a new public company. It's a way for CIT to maximize shareholder value. It's also an opportunity for Knittel to build a company focused solely on aviation, to make one last contribution to the industry that captured his imagination as a child, strolling among the single-engine prop planes on Wings Field in suburban Philadelphia.

“Going with the new company would be the capstone of my career,” he says. “We intend to have it all wrapped up in 2016.” 🍂

David McKay, left, and C. Jeffrey Knittel are fellow Embry-Riddle Eagles and business colleagues. Both hail from suburban Philadelphia and have business headquarters in New York City.



Enterprising Solutions

Social entrepreneur **Peter McAlindon** ('89, DB) changes lives through innovation

BY MOLLY JUSTICE

A routine, daily task can inspire big ideas. For Peter McAlindon ('89, DB), that activity was hours of typing and programming. The uncomfortable effect—numbness in his fingers. The solution—the orbiTouch, a patented computer keyboard and mouse that requires no finger or wrist motion to operate. It was developed for people who do not have the finger or hand dexterity to use a regular keyboard or mouse.

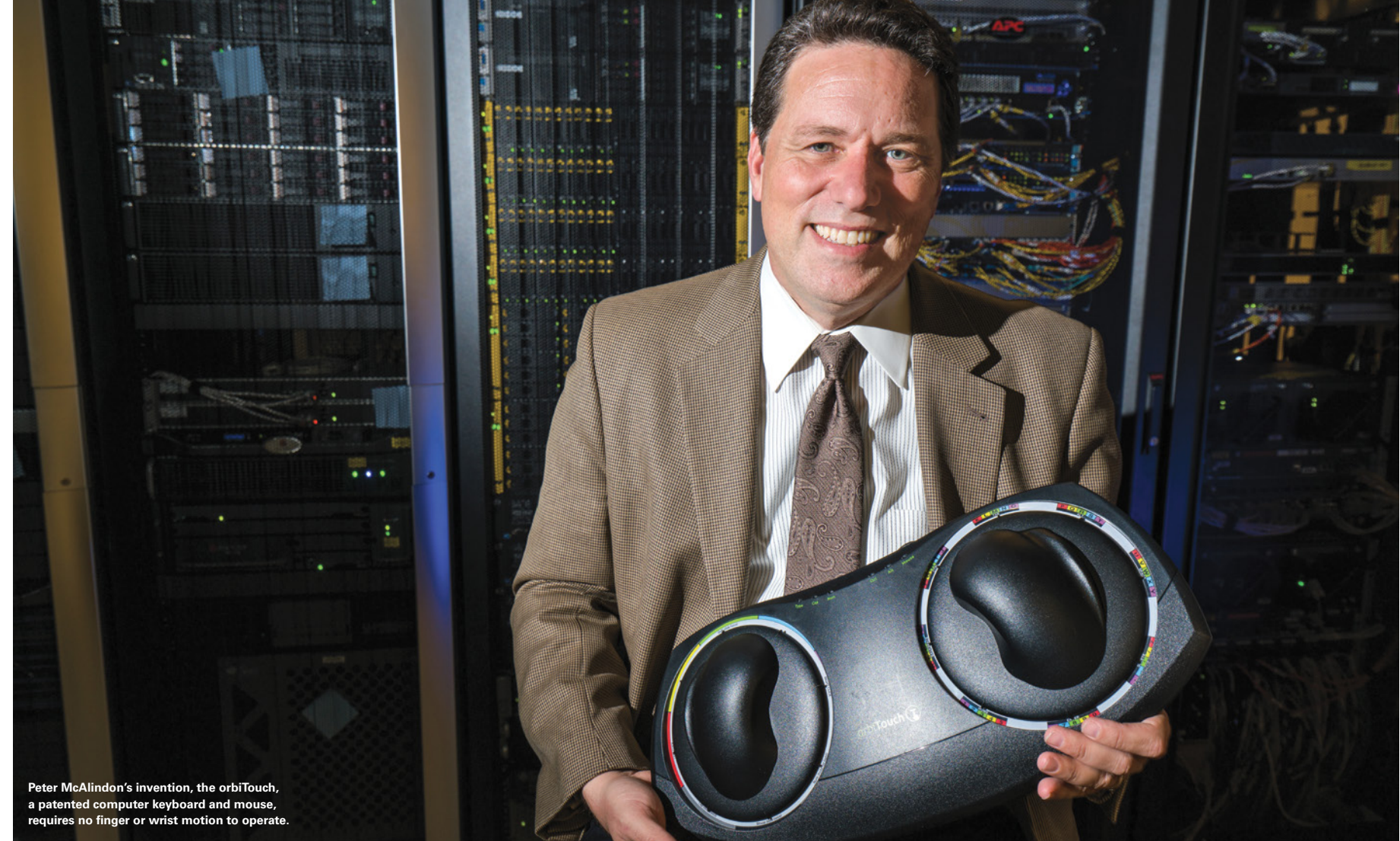
McAlindon is the founder and CEO of technology company Blue Orb and co-founder of venVelo, a business accelerator and seed capital fund. VenVelo was recently named a resident partner at Embry-Riddle's Research Park in Daytona Beach, Fla. As such, it will play a key role in supporting startup ventures and advancing new technologies toward commercialization and launch.

McAlindon is currently teaching as the entrepreneur-in-residence at the Rollins College Crummer Graduate School of Business in Winter Park, Fla. He earned a Master of Aeronautical Science at Embry-Riddle and holds a Ph.D. in Industrial Engineering from the University of Central Florida.

A social entrepreneur with a heart for improving quality of life for people with physical challenges, he recently shared some of his experiences and business advice.

Q: How long did it take to develop orbiTouch—from idea to market?

A: Almost eight years. The idea for the orbiTouch Keyless Keyboard was first investigated via my doctoral dissertation. After completing the initial



Peter McAlindon's invention, the orbiTouch, a patented computer keyboard and mouse, requires no finger or wrist motion to operate.

dissertation research, the company was born, and we had multiple National Science Foundation Small Business Innovation Research grants that helped us further prove out the technology and to develop our first prototypes. It took another few years to raise capital to complete the tooling and to manufacture the product.

Q: What made you realize that your keyboard/mouse was a real, marketable idea?

A: When a participant in one of my initial studies wanted to place an order for an orbiTouch. She offered me cash to buy the first one. She was a retired typing instructor and had carpal tunnel in both hands. After her first few sessions with the orbiTouch, she began to cry; when I asked what was wrong, she said she hadn't been able to type for years due to the pain. The orbiTouch allowed her to type again.

Q: How has orbiTouch opened up new personal and professional interests for you?

A: Business is about relationships with people. So, too, is life—it's about meaningful connection with other people. What is meaningful is helping one another when and where you can. The orbiTouch has been the vehicle for me to come to know so many great people from all walks of life. It's been humbling,

enlightening and very rewarding on many levels. When you get to know someone and are blessed to help them with one of their needs, the whole world opens up for you and for them. With regard to personal interests, I realized that much more can and should be done to help people with disabilities. Technology helps level the playing field for jobs, education and social well-being. What's interesting is that everything I do now professionally aligns well with my personal goals to help other entrepreneurs and, in particular, those who serve people with disabilities.

Q: How can entrepreneurs stand out in today's crowded marketplace—to both consumers and investors?

A: To stand out today, an entrepreneur needs to have feedback and buy-in from as many people as possible during their entire development process. An entrepreneur first and foremost needs to know and understand that there is a market for their product(s) or service(s). The best way to do this is to talk to people early and often about what you are doing, discover how well your idea addresses their true need, and develop a business model to launch and build your business. Similarly, the best way to impress investors is to develop a business model that works, with real customers driving it—that means being in touch

with people who have a need and are willing to pay to have that need fulfilled. When you can demonstrate that you have a market for your product, with real customer data and interest, investors will take note.

Q: What characteristics/attributes do entrepreneurs need to succeed?

A: You really have to believe in what you are doing and you have to stay with it long enough to make it work. You can't be afraid to tell the world, one person at a time, about your idea. Without a deep interest and passion for an idea, it's difficult to work the long hours required to make it a reality. There are several others we can discuss as well—coach-ability, openness to new ideas from other people, not being afraid to fail, being thick-skinned for all of the doubters and naysayers.

Q: Any additional advice, insight for budding entrepreneurs?

A: Don't be afraid. Stay with it. Reach out to other entrepreneurs. Find a market first, develop a product. Learn from others. Identify and build on a real need. 🌟

EDITOR'S NOTE: McAlindon is the chairman of the Industry Advisory Board for Embry-Riddle's Center for Entrepreneurship.

DARYL LABELLO



Timothy Englehardt, far right, aspired to be a TV meteorologist. Prior to his 2014 death, he interned with WCVB-TV in Boston.

Band of Brothers

Sigma Chi memorial scholarships keep their brothers' dreams alive

BY MELANIE STAWICKI AZAM

Timothy M. Englehardt loved being a Sigma Chi brother, almost as much as he loved studying meteorology.

"His absolute dream was to be a weatherman in Boston," says Jarrett Starbuck, president of the Sigma Chi Fraternity, Eta Iota chapter at Embry-Riddle's Daytona Beach Campus. "He was very passionate about what he did and about the fraternity in general."

Energetic and upbeat, Englehardt, 22, a Boston native, was the go-to guy for any weather-related questions and a senior who was actively involved in the fraternity, recalls Starbuck. He had just completed a summer internship with WCVB Channel 5 in Boston, when he died tragically in a shooting incident in Holly Hill, Fla., on Sept. 13, 2014. Englehardt's



Timothy M. Englehardt

sudden death hit his Sigma Chi brothers hard and left them wanting to do something to remember him.

"We wanted to do something for Tim related to what he was passionate about," Starbuck says.

The result: the Timothy M. Englehardt Memorial Scholarship for Meteorology. Established by family, friends and fellow Sigma Chi Fraternity, Eta Iota chapter members, the scholarship will provide financial support on an annual basis for a meteorology student attending Embry-Riddle's Daytona Beach Campus.

Family Support

"We appreciate Embry-Riddle helping create this scholarship with the support of the Eta Iota chapter of the Sigma Chi brotherhood to allow students' dreams to live on," say Englehardt's parents, Therese and Bill Englehardt. "Having Timmy's legacy continue through this memorial scholarship shapes his very dream of becoming a meteorologist since grade school." Family and friends also established a scholarship in Englehardt's name for a graduating senior at Haverhill High School in Massachusetts, where he was a member of the varsity football team and the National Honor Society.

The Englehardt scholarship at Embry-Riddle was announced at the fraternity's 45th anniversary held March 31–April 3, 2016, at the Daytona Beach Campus. More than 325 Sigma Chi alumni and their guests attended the event, including honorees Therese and Bill Englehardt. Bill was given an honorary pledge pin and lifelong Sigma Chi pin during the dinner.

"It was not only about remembering Tim, but also to be there in support of his family," Starbuck says. "We look out for each other."

Lyndse Costabile, director of development at Embry-Riddle, says many Sigma Chi alumni give back to support the chapter, its scholarships and

the university. A total of \$50,000 in gifts from 67 Sigma Chi alumni was donated in the past fiscal year alone, she says.

"It's a brotherhood—they support their family," Costabile says.

"This is the first time our development team has witnessed such a combined philanthropic effort from a Greek organization to support student scholarships, build legacies for fallen Eagles and engage more Embry-Riddle alumni."

Memorial Tradition

Sigma Chi Fraternity alumni lead John Wrightington ('79, DB) says there is a tradition of honoring the memory of chapter brothers who have passed away. Sigma Chi scholarships were also created in memory of Charles "Chuck" Torrisi ('94, DB) and Ryan Donley ('00, DB).

Additionally, in 2014, the John R. Delafosse Memorial Scholarship was established to honor a founding member of the Eta Iota chapter. Delafosse ('72, DB) was a pilot for 40 years. He died at the age of 64 from pancreatic cancer. His wife, Teresa Delafosse, created the scholarship to help aviation students pay for flight training costs at Embry-Riddle.

"We wanted to do something for Tim related to what he was passionate about."

—JARRETT STARBUCK

James Wasef ('16, DB) was the latest recipient of the John R. Delafosse Memorial Scholarship. He says the scholarship helped him financially; plus he was honored to be the first Sigma Chi recipient. "It was something I was truly proud of," he says. "Everything I learned about leadership I learned from Sigma Chi. You are always striving to make yourself better."

Wrightington agrees. Community service, leadership and brotherhood are hallmarks of the fraternity, he says.

Starbuck says it's the shared sense of brotherhood that sparked the creation of Englehardt's scholarship. "It is really hard to describe the connection we have as Sigma Chi brothers," he says. "Tim was here and we really want to remember and appreciate who he was." 🦅

The Sigma Chi Eta Iota chapter celebrated its 45th anniversary March 31–April 3, 2016, at the Daytona Beach Campus. The chapter has a tradition of creating namesake scholarships to honor its brothers who have died.



WCVB-TV

CHI-VALRY WU

Prescott Campus Sigma Chi chapter to honor two founding fathers

Memorial scholarships are also important to the Kappa Phi chapter of Sigma Chi at Embry-Riddle's Prescott Campus. The chapter is in the process of establishing a scholarship in memory of two deceased brothers.

The Sigma Chi Symons-Tomai Memorial Scholarship will honor Christopher Symons ('07, PC) and Michael Egan Tomai ('05, PC). Symons was a founding member of the Kappa Phi chapter, and Tomai was a brother from the Daytona Beach Campus' Sigma Chi Eta Iota chapter who transferred to the Prescott Campus and helped found the Kappa Phi chapter.

"Chris and Michael were huge contributors in the establishment of the Kappa Phi chapter," says Chester Peyton ('06, PC), who is leading the effort to create the scholarship.

Symons, who earned a B.S. in Aeronautical Science, died in a car accident while returning home from Coast Guard duty in San Diego on June 26, 2008. He was 23 years old. He earned his chapter nickname, "Choo Choo," after several brothers discovered he had worked as a train operator at Disneyland in California. He served as an ensign in the U.S. Coast Guard and as a first officer for Piedmont Airlines.

Tomai led the founding members of the Kappa Phi chapter through their first initiation in fall 2005, when the chapter earned its charter. That same year, he commissioned into the U.S. Marine Corps. He served in Operation Iraqi Freedom from 2006 to 2009, and went on to manage special operations capability research and development in the office of the Secretary of Defense's Irregular Warfare Support Program. Tomai, 30, died on May 12, 2013, in Alexandria, Va.

Plans are to create a term scholarship first, says Peyton, while raising funds over the next five years to establish an endowed scholarship. Donations are being sought from the Kappa Phi chapter brothers and through Embry-Riddle's crowdsourcing site crowdfunding.erau.edu.

"I wanted to organize a scholarship that combined the efforts of all the chapter alumni, which is close to reaching 100 members, to maximize the impact and show the active brothers that membership in Sigma Chi extends past graduation," Peyton says. "We are paying attention and we do care."

Training Them Up

Robert 'Rob' Ewing ('94, DB)
inspires youth through flight

BY SARA WITHROW

Robert "Rob" Ewing ('94, DB) lives to give young men and women the experience of flight. The founder and director of the Aviation Academy at Admiral Farragut Academy, a private boarding and day school for grades K-12 in St. Petersburg, Fla., Ewing has flight trained at least 500 students since he started teaching there in 1998.

"That first time, for me, I felt connected, like I belonged there," says Ewing of his first flight. "It was the control, the movement, that feeling of leaving the ground. Obviously, there was the adrenaline rush and the excitement of it, but it was more like nothing else mattered. There were no other problems. It was wonderful, and it's felt the same ever since. I've never lost that feeling."

It's a feeling Ewing wants others to have, and he's dedicated his adult life to that end. Shortly after experiencing his first flight, he moved to Daytona Beach and enrolled in Embry-Riddle's Aeronautical Science program. Earning his bachelor's degree in 1994, as well as commercial, multi-engine and instrument ratings, he got married and worked a few odd jobs before finding his true calling.

"I didn't plan to become a teacher. Teaching found me," he says. It was while working for the Florida Sheriff's Youth Ranches that he realized his passion for education. "Seeing that moment when learning takes place, that moment when they say, 'Man, I didn't

know that,' and then they suddenly realize now they do know it; you can't put a price on it."

Aligning with Embry-Riddle

At Admiral Farragut, Ewing quickly developed his other passion, aviation, into a full-blown program for the school. After earning his flight instructor certification in 1999, there was no stopping him. What started as one high school aviation elective at Admiral Farragut has turned into an aviation program that includes introductory flights at the middle-school level, a ground school with simulator training, and the opportunity to earn a private pilot's certificate with up to 50 hours of flight time.

Since 2014, Admiral Farragut has participated in Embry-Riddle's Gaetz Aerospace Institute, which allows junior and senior high school students to take college-credit courses taught by college-credentialed teachers, all while earning their high school diplomas.

"I wanted to align my program with Embry-Riddle and create a seamless transition for my students," Ewing says.

A steadfast advocate for his alma mater, over the years Ewing has helped many Admiral Farragut graduates enroll in flight and other programs at Embry-Riddle. "On average, Rob sends two students a year to Embry-Riddle, and we've had some years where as many as four have matriculated. That's quite a significant number considering our senior classes

average 65," says Robert J. Fine, headmaster and president at Admiral Farragut. This year, eight Admiral Farragut graduates applied and were accepted into Embry-Riddle. As of May 2016, three had committed to attend.

"There are seven current students at Embry-Riddle who Rob taught and mentored at Admiral Farragut, and there are nearly 100 more he has encouraged in the past to come to the university, and who have since graduated," says Bill Thompson, executive director of alumni relations at Embry-Riddle. "His continued support of the university and, more importantly, his support of young people entering the aviation industry is commendable."

Transforming Lives

Liu Bolun, a senior at Embry-Riddle majoring in aerospace and occupational safety, and the safety officer for the Eagles Flight Team, is one of Ewing's recruits. "When I was a sophomore at Admiral Farragut, Mr. Ewing was my Aero Science teacher," Bolun says. "One day, I asked him if there was any university famous for an aviation degree. He straightly replied, 'Embry-Riddle.' He supported me 100 percent in attending Embry-Riddle. He did everything he could to expose me to aviation."

For Ewing, that's what it's all about, giving students the aviation experience and watching it transform their lives. "It makes an impact on who they are and how

they look at the world," Ewing says. "Once a student solos and they come back, you can see the change in them: who they are, how they approach their peers and how they look at their future. They have a sense of accomplishment." ✈

EDITOR'S NOTE: Ewing was named Embry-Riddle's 2015 Alumni Service Award recipient. He received the award on Oct. 9, 2015, at the Daytona Beach Campus' Homecoming celebration.



Left, Robert Ewing poses with lower division students at Albert Whitted Airport in St. Petersburg, Fla., after giving them a discovery flight. Above, personal-computer-based aviation training devices are used in advanced flight courses at Admiral Farragut Academy; and below, Ewing uses gas-powered control line model aircraft to teach principles of flight.



ALUMNI NEWS

MESSAGE FROM THE ALUMNI ASSOCIATION

As I write this, I am reminded of T. Higbee Embry, who once said, “We start into a new year which we know will be crammed full of history in aviation—packed with events and progress that we can’t even imagine.”

Here we are 90 years later, and I realize with incredible pride the positive impact that Embry-Riddle has had and continues to have on the world’s aviation industry. Eagles are everywhere, and each year we find more ways to connect and network with each other.

This year’s homecoming weekends kick off at each campus with the annual Industry/Career Expos and eagleNIGHT receptions. Held in conjunction with OctoberWest, the Prescott Campus, and its flight line at Ernest A. Love Field in Prescott, Ariz., will also welcome the AOPA Regional Fly-In, which will host hundreds of air-planes and aviators, along with industry presentations. A 90th anniversary tribute celebration, fly-in and static display will highlight homecoming weekend at our campus in Daytona Beach, Fla. The Wings & Waves Air Show will not be held this year. Watch your inbox and check the alumni website alumni.erau.edu/homecoming for updates.

Eagle Strong

The Embry-Riddle Eagle Network is cited time and again by alumni as a key component to their success. I have personally witnessed numerous alumni and students who either found jobs or filled positions through connections that started at an alumni gathering. This year alumni events were expanded globally, with our networks meeting in Italy, France, Germany, China, Brazil, Singapore and India. It’s important to keep your contact information up to date so we can invite you to our alumni gatherings. If you move, let us know. Visit the alumni home-page, alumni.erau.edu, to make address changes and to check for event announcements.

On your next visit to the Daytona Beach Campus, be sure to look us up in the new Eagle Alumni Center located east of Clyde Morris Boulevard (formerly Embry-Riddle’s Information Technology offices), near the track and field facilities. The Alumni Welcome Center at the Prescott Campus, located just east of the main Visitors Center, invites you to visit as well. Stop by any time and enjoy a cup of coffee with us!


Your campuses are changing. Embry-Riddle is vibrant with research, new programs, new residence halls and laboratories, student and Greek life, and athletic achievements. Come see your beautiful campuses and witness the change. Even better, get involved and be a part of our exciting future. Contact me at William.Thompson@erau.edu; 386-226-7457.


Thank you for being *Forever an Eagle*,

Bill Thompson ('87, PC)
Executive Director

 facebook.com/ERAUAlumni

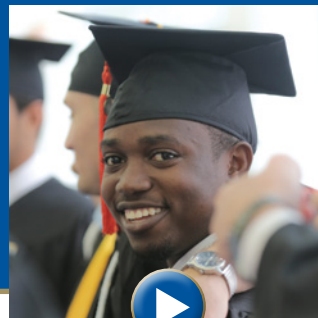
 twitter.com/ERAU_Alumni

 alumni.erau.edu/LinkedIn

 Join the Eagle Network:
alumni.erau.edu/join

 instagram.com/erau_alumni/

COMMENCEMENT SPRING 2016



WATCH

Commencement photo slideshows for all three campus graduation ceremonies: lift.erau.edu/videos-fall-2016.



GRADUATES
RANGED IN
AGE FROM:

19 to 68

1,478

DEGREES AWARDED
(TOTAL)



Doctoral degrees: 2
Master’s degrees: 361
Bachelor’s degrees: 1,066
Associate degrees: 49

MOST POPULAR MAJORS BY CAMPUS:

108 (DB)
B.S. in Aerospace Engineering

63 (PC)
B.S. in Aerospace Engineering

206 (WW)
B.S. in Aeronautics



NUMBER OF COUNTRIES REPRESENTED:

53



GRADUATING WITH ACADEMIC HONORS:

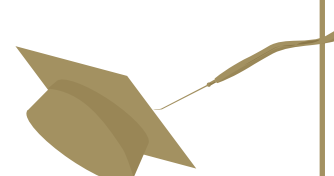
430

FEMALE GRADUATES:

338

MALE GRADUATES:

1,118



CAMPUS LEGEND

DB Daytona Beach, Fla.
PC Prescott, Ariz.
WW Worldwide Campus

NOTE: INCLUDES ALL MAY 2016 CEREMONIES (DAYTONA BEACH CAMPUS, PRESCOTT CAMPUS AND WORLDWIDE CAMPUS: DAYTONA BEACH; PRESCOTT, EUROPE; PENSACOLA, FLA.)

A Living Legend by No Accident

Greg Feith ('81, DB) dedicates his life to enhancing aviation safety

BY SARA WITHROW



Above, a student cooperative participant with the National Transportation Safety Board, Greg Feith poses for a photo at the scene of the deadly 1980 aircraft crash in Truckee, Calif., that forever changed his career path. Right, Feith, far right, photographs wreckage from the 1985 Eastern Airlines Flight 980 crash atop Mount Illimani in Bolivia.



Standing in a field of debris consisting of airframe parts, bits and pieces of wiring, luggage and bodies—the remnants of a tragic aircraft crash—Greg Feith ('81, DB), former senior air safety investigator and “Go-Team” captain for the National Transportation Safety Board (NTSB), sees hope.

“When you’re trying to process that a family or hundreds of people perished in an accident, I look at it—not with an emotional attachment to the victims, but with a sense of purpose—to try to prevent it from happening again. I’ve always used the surviving families and the victims as motivators,” he says.

A renowned international aviation safety and security consultant, media spokesperson and expert witness on the topic, Feith has investigated more than 2,500 aircraft accidents worldwide since he started his career 36 years ago. In January 2016, he was inducted into the Living Legends of Aviation, in acknowledgment of his significant contributions to aviation. The Legends, which include entrepreneurs, innovators, industry leaders, record breakers, astronauts and pilots, nominate and select the inductees each year.

Feith says he’s honored by the recognition, but for him the greatest reward is intrinsic. “I’m not going to save the world, but I know that every single day that I do my job, I’m contributing to making aviation safer. One of my greatest accomplishments is the fact that through perseverance and passion I found something that I absolutely love.”

An Epiphany on a Mountain

Feith’s love affair with aviation safety started in 1980, as a student at Embry-Riddle. He participated in a cooperative training program at the NTSB and was hooked.

“It happened while I was investigating my third accident,” he says. “I’m standing on top of this mountain in Truckee, California. It’s a beautiful blue-sky day and I’m in the middle of a Cessna 210 that had crashed and killed a family of six. I’m standing up there and it hit me. It was like, ‘Greg this is what you’re going to do for the rest of your life.’ It changed my entire career that day on top of that mountain, and I’ve never done anything else except aviation safety. I still fly—I love to fly. I love every aspect of aviation, but I really love accident investigation.”

It’s been a whirlwind ever since. After performing two co-op semesters back-to-back at the NTSB, Feith



Left, Greg Feith with celebrity and pilot John Travolta at the 2016 Living Legends of Aviation awards ceremony in Beverly Hills, Calif. Below, a young Feith builds a model rocket with his father.



accepted a full-time position with the agency in 1981, becoming the youngest investigator on staff. “They took a chance on me,” he says.

Feith became the roaming investigator, working in locations that were low-staffed or that had an extenuating need. He quickly gained experience. “My timing working for the NTSB in the ‘80s, ‘90s and early 2000s was such that we had a lot of hull losses all over the world. My upper management had a lot of confidence in my ability as a leader, and that’s why I ended up doing a lot of accidents. At one time, I was working five major accidents [1994-1996].”

Young and single at the time, he volunteered for more risky missions, as well. When Eastern Airlines Flight 980 crashed in 1985 into Mount Illimani in Bolivia at an elevation of 20,000 feet, Feith stepped up to lead the investigation. Fighting extreme cold and the physiological challenges of working in high altitudes, the search team located the accident site—to this day the highest crash scene of a commercial aircraft controlled flight into terrain. The wreckage, however, was buried under 30 feet of snow. The team was unable to find the coveted “black box.”

“We were on the mountain 10 days. We would probe the snow until we found something larger than a dining room table. We did dig out the whole tail section,” Feith says. In the end, Feith had to piece the investigation together based on technical evidence. “They drifted off course at night. They didn’t see what they hit,” he says.

Going Beyond Accident Investigation

For Feith there is a predominant question that drives his work. Why? “We can usually figure out what happened. But the question is why would the pilot make this decision? The why is the hardest part.”

Dan McCune, director of safety at Embry-Riddle, says Feith’s years of experience make him an ideal teacher for flight students and new flight instructors. A regular speaker at the university and an instructor of Embry-Riddle’s professional education safety courses, Feith is always willing to share his expertise. “From the moment he opens his mouth, the flight

instructors follow his every word,” McCune says.

“He takes his knowledge beyond accident investigation and applies it to accident prevention.”

A former member of the Embry-Riddle President’s Advisory Council and the Aerospace Safety and Education Industry Advisory Council, in 2001 Feith was honored with the Distinguished Alumni Award for his contributions to the industry and the university.

“There’s no doubt that he’s passionate about aviation safety. He has a deep passion to make a meaningful difference,” says Brian Roggow, aviation safety program manager for flight at Embry-Riddle’s Prescott Campus.

Since retiring from the NTSB in 2001, Feith has continued to do just that. He volunteers for several nonprofits, including Shades of Blue, an organization that gives underprivileged kids opportunities to experience flight; and he’s launched two safety products: LapKidz, a Federal Aviation Administration-approved child restraint system for infants and toddlers, and the SMART Emergency Location Transmitter (ELT), in partnership with InFlight Labs.

The ELT can be activated in flight before a crash to track an aircraft in distress, says Feith, who is also designing a modified version of the LapKidz device to prevent child drowning accidents in bathtubs.

“I don’t just want to talk about the problems—I want to be part of the solution,” he says. 🌿



WEB EXCLUSIVE

Read about Greg Feith’s secret to career success: lift.erau.edu/greg-feith.

WATCH

Greg Feith as he investigates the May 6, 1937, airship Hindenburg disaster for the National Geographic Channel: lift.erau.edu/greg-feith.

From Private Aviation to Covert Operations

Alumna makes career in the CIA

BY MELANIE STAWICKI AZAM

Patricia A. Hetu-Tkacik ('83, DB; '90, WW) never imagined her love of flying would lead her to a job with the Central Intelligence Agency (CIA).

The CIA was seeking someone with an aviation background, and she was hired in 1986 as a specialized skills officer at the agency. Hetu-Tkacik

holds a Bachelor of Science in Aeronautical Science and a Master of Aeronautical Science from Embry-Riddle.

"When I first started, it had to do with aviation, which was my first love," says Hetu-Tkacik, who has been with the agency 30 years and currently serves as a senior recruitment manager with the CIA's Directorate of Operations (DO).

A pilot, Hetu-Tkacik did not fly for the agency, but was hired for her civilian aviation knowledge. She worked in

the DO, primarily at CIA Headquarters in Washington, D.C., but with frequent business trips worldwide.

She eventually became a manager with the DO, also known as the Clandestine Service, which is the arm of the CIA that conducts covert operations and recruits foreign agents.

"When working overseas, I couldn't acknowledge who I worked for," she says. "When I am working with folks overseas, it helps me get access to certain people, and it also safeguards me and my family."

Hetu-Tkacik says contrary to popular belief, it is possible to have a family and work for the CIA. When she was out of the country, her husband, who is a nurse practitioner, cared for their son, who is now 26 years old.

She quickly discovered that she loved working for the agency. "When you see all the things going on in the world and when you see collecting some

intelligence might help and protect us, it becomes an addiction," Hetu-Tkacik says.

From Pilot to CIA Officer

Hetu-Tkacik's father was in the U.S. Navy, so her family lived everywhere from Puerto Rico to London to the Washington, D.C., area. After deciding to study aviation, she chose to attend Embry-Riddle.

"ERAU was the cream of the crop, the golden nugget," she says. "It was the school you went to if you wanted to make it in aviation."

Hetu-Tkacik says the university was the perfect school to feed her passion for flying.

"I loved it from the very first moment I went down there, because by the second week of my freshman year, I was already flying," she says. "By Christmas, I had already soloed."

Her graduation was equally memorable. "We graduated on the tarmac," she says. "It started raining and we all took cover in the airplanes until the storm was over."

Upon graduating, she took a job as a pilot for a corporate charter airline carrying cargo, plus worked as a flight instructor.

"I flew a Piper Navajo up and down the East Coast—all day and in all kinds of weather," Hetu-Tkacik says. "After doing that for a year, I kept looking for my next challenge."

Family Ties

Although she loved flying, she wasn't sure she wanted to make it her lifelong career, so she applied to the CIA, where her father had worked for four years in public relations. "The agency offered me a different challenge," she explains.

In her current role she recruits U.S. citizens for jobs at the CIA in a variety of fields, including aviation. Her background as a pilot helps her daily with management and people skills.

"In 30 years, what I enjoy most about the job is the people," Hetu-Tkacik says. "It is a camaraderie, like the military, but even more so. We are very family oriented and we really watch each other's backs."

Still passionate for aviation, she and her husband are currently building an airplane together. "I still fly and I still love it," Hetu-Tkacik says.



Patricia Hetu-Tkacik speaks with Embry-Riddle students following an on-campus presentation.

CHRIS DEAGUSTINE



COME HOME THIS FALL

OctoberWest Alumni Homecoming Weekend & AOPA Regional Fly-In

PRESCOTT, ARIZ.

THURSDAY, SEPT. 29

- Industry/Career Expo
- eagleNIGHT

FRIDAY, SEPT. 30

- AOPA Regional Fly-In
- Chancellor's Alumni Hall of Fame Reception
- AOPA Barnstormers Party
- 27th Annual Alumni Golf Tournament

SATURDAY, OCT. 1

- Aerobatic Performance
- AOPA Regional Fly-In
- Breakfast & Static Display

Note: AOPA Regional Fly-In activities are open to alumni

Alumni Homecoming Weekend

DAYTONA BEACH, FLA.

THURSDAY, OCT. 6

- Industry/Career Expo
- eagleNIGHT

FRIDAY, OCT. 7

- Alumni Return to Classes
- Campus Tours
- Alumni Welcome Barbecue
- Comedy Show
- Open Night for Affinity Reunions

SATURDAY, OCT. 8

- Fly-In Breakfast
- Fly-In and Static Display
- 90th Anniversary Celebration, Concert and Fireworks

To register and for up-to-date information: alumni.erau.edu/homecoming



EVENTS ON THE RADAR

For the most up-to-date list of events, visit alumni.erau.edu/events.

SEPT. 10

Worldwide Campus Commencement
Seattle

SEPT. 17

Worldwide Campus Commencement
Ford Island (Oahu), Hawaii

SEPT. 20

Alumni Networking Event at the Human Factors and Ergonomics Society International Annual Meeting
Washington, D.C.

SEPT. 29–OCT. 1

OctoberWest Alumni Homecoming Weekend & AOPA Regional Fly-In
Prescott, Ariz.

OCT. 6–8

Alumni Homecoming Weekend
Daytona Beach, Fla.

OCT. 16–19

61st Air Traffic Control Association Conference & Exposition
National Harbor, Md.

OCT. 22–23

Wings Over Houston Airshow
Houston

OCT. 28

Frankfurt Alumni Networking Reception
Frankfurt, Germany

NOV. 1–3

National Business Aviation Association's Business Aviation Convention & Exhibition
Orlando, Fla.

NOV. 2–6

Society of Hispanic Professional Engineers Conference
Seattle

NOVEMBER 2016

National #EaglesHelp month
Serve your community with your local Eagle Network
alumni.erau.edu/eagleshelp

CAREER CORNER



SAVE THE DATE

2016 Industry/Career Expos:

THURSDAY, SEPT. 29
Prescott, Ariz.

THURSDAY, OCT. 6
Daytona Beach, Fla.

For additional information and job resources: careerservices.erau.edu.



LIFELONG LEARNING

Embry-Riddle Professional Education

Embry-Riddle offers educational opportunities for professionals and organizations in the aviation and aerospace industry.

View upcoming seminars and certificate courses: proed.erau.edu.

CLASS NOTES

To share your Class Notes with *Lift* and your fellow alumni, join Embry-Riddle's online community at alumni.erau.edu/join today; or submit your announcements through email to eralumni@erau.edu. For guidelines, visit alumni.erau.edu/notes_guidelines.

Career News

1970s

John Alger ('73, DB) was elected National Chairman of the U.S. Naval Sea Cadet Corps (NSCC) at the annual meeting of members of the Navy League of the United States held in Charleston, S.C., in June. The NSCC is the youth program of the Navy League. He has been a volunteer with the program since 1991, when his son, now a chief petty officer in the U.S. Coast Guard, became a cadet in the program. Alger and his wife, Joan, reside in Charlotte, N.C., where Alger is employed by American Airlines as senior flight crew training instructor for the Airbus A320.

Mori Hosseini (HonDoc '13; '78, '79, '82, DB), who is chair of Embry-Riddle's Board of Trustees, was selected as vice chair of the University of Florida's (UF) Board of Trustees. Hosseini was appointed to the position for a two-year term on June 9, 2016, following a vote by UF trustees. Hosseini joined the UF Board at the end of March upon appointment by Gov. Rick Scott. Prior to joining UF's Board, Hosseini served as chairman of the State University System Board of Governors.

1980s

Mark Phillips ('80, DB) retired in June 2016 after 33 years at the

Northrop Grumman Corp. He worked as an engineer/program manager mostly on the B-2 bomber and E-2 programs. He began his career at The Boeing Company as a flight test engineer on the 757 program.

Jim Zurales ('81, DB) is chief of standardization/evaluation for the Minnesota Wing of the Civil Air Patrol (CAP). A 42-year CAP member, he also serves as an orientation pilot, flight instructor, check pilot and search mission pilot. A captain at Delta Airlines, he flies the Boeing 757 and 767.

Luc Bausch ('82, DB; '89, PC), president of Aero Racers Inc., received the Industry Person of the Year Award May 21, 2016, from the Los Angeles County Industrial and Technology Education Association.

Richard Muir ('83, PC) was promoted to managing director of flight operations at United Airlines' corporate headquarters in Chicago. Previously, he was director of current, contingency and emergency operations.

Brigitte Lakah ('86, DB) is a pilot for UPS. At age 40, she earned her international captain's seat on the B-75/76. She lives in Clearwater Beach, Fla., and is based in Louisville, Ky.

Retired U.S. Air Force Lt. Col. Lester E. Preston ('86, '96, DB) joined the Million Air team as



American Jet International's executive vice president of charter operations, effective March 2016.

Charles Aybar ('87, PC), who is an aircraft sales manager at Blackhawk Modifications Inc., competed at the 2016 USA Roller Sports National Championships in Lincoln, Neb., July 26 to Aug. 4, 2016. He and partner Megan Hendrix competed in the open free dance event. The pair placed fourth last year.

Mark E. Gale ('87, DB) was named the aviation department director for Broward County's Fort Lauderdale-Hollywood International Airport. Gale was previously CEO at Philadelphia International Airport.

Bill James ('89, DB) is vice president of programs at Sierra Nevada Corp.

Randell S. Meyer ('89, WW), a pilot at JetBlue Airways, was upgraded to captain in March 2016.

1990s

Terrence Lewis ('90, WW) was promoted to Boeing 737 and 757/767 captain at United Airlines. He has completed 20 years at the company.

Capt. Arnold W. Quast ('90, DB), who is a pilot at United Airlines, was featured in the airline's March 25, 2016, *Flight Operations Update* for mentoring a fellow Eagle Scout, Justin Everett ('06, DB). Quast met Everett when the aspiring pilot was 17. Since then he has mentored him in his flight education and career. In 2015, Quast welcomed Everett to the United Airlines family as a first officer.

CAMPUS LEGEND

BFTS	No. 5 British Flying Training School
MC	Miami Campus
DB	Daytona Beach, Fla.
PC	Prescott, Ariz.
WW	Worldwide Campus

This spring the duo piloted their first United Airlines flight together.

Lt. Col. Sean J. VanHoltz ('91, DB) returned to US Airways' (American Airlines') Flight Training Department (Airbus A-330 Sim IP) in Charlotte, N.C., after 12 years of furlough and military leave. VanHoltz is also an emergency preparedness liaison officer in the U.S. Air Force Reserves, with duties in the national Capitol region.

Todd Engelman ('93, DB) is the engineering lead and senior technical adviser to the Air Force Research Laboratory's Advanced Structural Concepts branch at Wright-Patterson Air Force Base in Ohio.

Jim Reyes ('93, DB) is charter coordinator for Pacific Coast Jet, which is based in the San Francisco Bay area.

Ismael L. Bonilla ('94, WW) is airport director for Milwaukee County's General Mitchell International Airport in Milwaukee.

Retired U.S. Navy Cmdr. John "J.C." Coffey ('94, WW) was named 2015 Association for Unmanned Vehicle Systems International (AUUSI) Member of the Year (May 2015). Coffey is the executive director of unmanned systems for Cherokee Nation Technologies (CNT). He is active in the local Washington, D.C., AUUSI chapter, and the award recognized his dedication to advancing unmanned systems through industry innovation and member recruitment. A retired naval aviator and Department of Defense acquisition professional, Coffey joined CNT in 2014.

Luis de Bono Paula ('95, DB; '01, WW) and his wife, Lisa, are co-founders of Spirit Monkey in San Antonio. Spirit Monkey, which specializes in the design, manufacture and sale of embroidered employee and student recognition products, made the 2015 *Inc. Magazine* 500 list of fastest-growing private companies in America at No. 134. Formerly, Luis was a flight instructor in the U.S. Air Force and flew combat missions in Afghanistan. He completed his MBA at the University of Texas at Austin and earned a law degree with honors. He and Lisa have been married for 27 years and have four children, the oldest of whom is proudly serving in the U.S. Navy aboard the USS Harry Truman.

Arlando S. Teller ('95, PC), the program manager for the Navajo Division of Transportation's Department of Airports Management, was appointed to the Arizona State Transportation Board. Teller will represent district 5, which includes Apache, Coconino and Navajo counties. Teller is the second Navajo in history to occupy a seat on the Arizona Transportation Board.

Retired U.S. Air Force Maj. Sean Borland ('96, WW) is an EC-145 instructor pilot with Memorial Hermann Life Flight in Houston. Borland retired from the U.S. Air Force in 2012 as a CV-22 Osprey evaluator pilot and flight lead at Cannon Air Force Base. He served 22 years as a Marine, Army attack helicopter instructor pilot and Air Force Special Operations helicopter and tilt-rotor instructor pilot. Borland also volunteers as a UH-1E Huey

pilot for the Collings Foundation Vietnam Memorial Flight at Ellington Field, Texas.

Xavier Samuels ('96, DB), a United Airlines first officer, was named one of the airline's 2015 Pilots of the Year.

Andrew Broom ('97, '00, DB) was appointed executive director of the Citation Jet Pilots (CJP) Owner Pilot Association, effective Aug. 1, 2016. He joins CJP after most recently launching the HondaJet for Honda Aircraft Company where he led all marketing and communications efforts globally since 2012. Prior to Honda, Broom was vice president of communications and outreach at the Aircraft Owners and Pilots Association. He has also worked at Hawker Beechcraft, Eclipse Aviation, the General Aviation Manufacturers Association and Embry-Riddle Aeronautical University. He earned both a B.S. in Aeronautical Science and an MBA-Aviation from Embry-Riddle, and completed his Certified Flight instructor, Instrument Instructor ratings.

Bryant Francis ('98, DB) is the director of Oakland International Airport. Previously, he was director of Long Beach Airport. He is a member of the Airports Council International-North America Board of Directors and is also the American Association of Airport Executives Diversity Committee Chair.

Jason Hendrix ('98, DB) is senior vice president for the aerospace specialty at JLT Specialty USA, a U.S. subsidiary of Jardine Lloyd Thompson Group (JLT). Based in Dallas, Hendrix

joins JLT following seven years as an aviation broker for Aon.

Rob Baran ('99, PC; '08, WW) retired from the Air Force as an Explosive Ordnance Disposal-rated officer and civil engineer and has accepted a position as a research and development engineer for Los Alamos National Laboratory.

Moriba Jah ('99, PC) is the director of the Space Object Behavioral Sciences program at the University of Arizona in Tucson. Previously, he was the director of the Advanced Science and Technology Research Institute for Astronautics at the Air Force Research Laboratory at Kirtland Air Force Base, N.M.

Andy Lagrone ('99, WW) is senior director of MacAulay-Brown's San Antonio-based cyber intelligence division.

Richard Zaher ('99, DB), founder and CEO of Paramount Business Jets, was elected chairman of the Air Charter Association of North America. He was also invited to the White House in April to celebrate Nowruz, the Persian New Year.

2000s

Juan Gomez ('00, DB) is director of administration for the Miami hub of American Airlines. He manages budgeting, financial planning and administration for the hub.

Retired U.S. Navy Cmdr. Michael Nortier ('00, WW) is the executive director of Island Transit, serving Whidbey and Camano Islands in Washington's Puget Sound. Nortier was previously the commanding officer of Naval Air Station Whidbey Island in Oak Harbor, Wash.

Retired U.S. Air Force Maj. Todd Gibbs ('01, WW) is the director of operations at Eastern Iowa Airport in Cedar Rapids, Iowa.

Lt. Col. Garrett Hogan ('01, PC; '06, WW) received the NATO Meritorious Service Medal from the Supreme Allied Commander Europe for meritorious achievement in the areas of allied electronic warfare, intelligence, surveillance and reconnaissance



planning, and cross domain operational level exercise reform. The NATO Meritorious Service Medal is awarded to commend NATO staff whose personal initiative and dedication extend beyond their duty to make a difference both to their colleagues and to NATO as an organization.

Devon May ('01, DB) was promoted to senior vice president of finance at the American Airlines Group Inc. Previously vice president of financial planning and analysis, May will retain those duties and assume the additional responsibilities of the division controllers, purchasing and insurance.

Ziva Arifin ('03, DB), who is the Embry-Riddle Alumni Network Leader in Jakarta, recently visited the Daytona Beach Campus to speak with Indonesian students about his Embry-Riddle experience and the aviation industry in Indonesia. Arifin is president director/commissioner of Aviatory Indonesia.

Maj. Dana Novinskíe ('04, PC) is the first-ever female instructor pilot for the 133rd Airlift Wing in St. Paul, Minn. She earned her private pilot's certificate while studying engineering at Embry-Riddle. She has accumulated more than 670 combat and combat support sorties and has been awarded the Air Medal six times.

Retired U.S. Air Force Chief Master Sgt. Rick Owen ('04, WW) is the president/CEO of United Way of Okaloosa/Walton County, Fla.



Darren Tumelson ('05, '15, WW), an FAA air traffic controller at the Memphis Center in Tennessee, was recognized by the FAA in February for his role in a pilot assist on Jan. 14, 2016. The pilot of a twin-engine Piper Cheyenne, who was traveling with his wife and two children, experienced engine trouble during ascent. Tumelson provided navigational assistance and airport information to the pilot, who ultimately landed the aircraft safely (with only one engine operating) at the Cleveland, Miss., airport.

Derrick Stanley ('06, '11, WW), an adjunct professor at Embry-Riddle's Worldwide Campus and an engineer at The Boeing Company, received the 2016 Black Engineer of the Year Modern Day Technology Award on Feb. 19, 2016.

Capt. Joseph Stenger ('06, DB) received the National Public Service Award from the American Society for Public Administration and the National Academy of Public Administration on March 21, 2016. The award recognizes outstanding public servants for extraordinary leadership in economic development and intergovernmental relations. Since 2011, Stenger, a pilot in the U.S. Air Force, has worked to improve the circumstances of Afghan widows and orphans living in Parwan Province, Afghanistan, through Flying Scarfs, a nonprofit organization that he co-founded.

Molly Mae Potter ('07, DB) is campaigning for Ms. Veteran America after a tour of duty in Afghanistan

with the U.S. Air Force. Ms. Veteran America is not a beauty pageant; it is based on military service, public speaking and raising awareness, and highlights women who display strength and courage. Potter has become involved with Final Salute, an organization focused on assisting homeless female veterans, through the Ms. Veteran America campaign.

Jeff Smith ('07, DB), an air traffic controller at the Cleveland Center in Oberlin, Ohio, received a 2016 Great Lakes Region AOPA Air Safety Institute Flight Assist Commendation Award at the National Air Traffic Controllers Association Communicating for Safety convention in March.

Robert B. Yonaitis ('07, WW), the chief technologist at BeyData, joined the Training Advisory Board at the International Association of Privacy Professionals, a not-for-profit global industry association that helps define, support and improve the privacy profession globally. Yonaitis graduated with a Master of Aeronautical Science with a dual specialty in aeronautics and space studies and holds a graduate certificate in instructional systems design from Embry-Riddle.

Donald "DJ" Blatnik III ('08, DB), who works at Central Florida TRACON in Orlando, Fla., was awarded the 2016 Southern Region's Archie League Medal of Safety and the 2016 President's Award at the National Air Traffic Controllers Association Communicating for Safety convention in March. On a busy day in April 2015, Blatnik was credited with saving the lives of three people on an airplane having mechanical issues. The Archie League Medal is given to controllers who have shown a great "save" in helping out pilots. The President's Award is given to nominees who had the "best save" or one that showed remarkable situational awareness, quick thinking and the ability to stay calm under pressure.

Yusuke Ishikawa ('08, '10, DB) is the co-founder of Skoshbox, an online retail service that delivers assortments of authentic Japanese snacks and goods on a monthly subscription basis.

Staff Sgt. Christian Bojorquez ('09, PC) was honored as an Outstanding Airman of the Year by the 452nd Air

Mobility Wing and the 4th Air Force. Bojorquez is a security forces specialist with the 452nd Security Forces Squadron at March Air Reserve Base, Calif.

Natalie (Moorer) Thompson ('09, DB), who is an automation engineer for Gulfstream Aerospace Corp., received the 2016 Young Technical Professionals National Member on the Move Award—1st Place at the National Society of Black Engineers (NSBE) Convention in Boston. She is also a diversity and inclusion ambassador for Gulfstream. Thompson is president and co-founder of the Savannah Coastal Empire Professional Chapter of NSBE and a member of Society of Women Engineers, where she is the nominations chair and on the outreach committee.

Leo Treggi ('09, '10, '12, WW) is the director of Winter Haven Municipal Airport in Florida.

2010s

Aaron P. Hascher ('10, WW) was promoted to operations duty manager of the Memphis-Shelby County Airport Authority at Memphis International Airport.

Karl Jahnke ('10, DB; '14, WW) is a system engineer at Virgin America headquartered in San Francisco. He holds a B.S. in Aerospace Engineering and an MBA-Aviation from Embry-Riddle. On the engineering team, he develops and implements the maintenance program and manages regulatory changes to ensure fleet safety and compliance. He specializes in the landing gear, hydraulic systems, fuel system, fuel tank inerting system, ice and rain protection systems, and maintaining compliance to the Environmental Protection Agency's Aircraft Drinking Water Rule.

Chief Master Sgt. Duane Kangas ('10, WW) is the wing command chief master sergeant of the North Dakota National Guard's 119th Wing, known as the Happy Hooligans. Kangas was promoted to chief master sergeant in early 2013 and has more than 30 years of military service.

William B. Collier Jr. ('11, DB) is an associate at Fish & Richardson, joining

CURTIS: U.S. AIR FORCE PHOTO/TECH. SGT. CHRISTOPHER BOITZ



the Intellectual Property Litigation Group at the firm's Dallas office. He is admitted to practice in Texas and the U.S. District Courts for the northern, southern and eastern districts of Texas.

Maj. Jason Curtis ('11, WW) piloted his final flight as Thunderbird No. 5 on Jan. 13, 2016, after a three-year tour as a solo pilot with the Air Force's elite performance team. The final flight is an Air Force tradition.

Alex Vacha ('11, DB) is the director of the Lake Wales Municipal Airport in Lake Wales, Fla. Vacha is the city's first airport manager.

U.S. Air Force 1st Lt. Emily Angell ('12, DB) was promoted to captain at a pinning ceremony at the Embry-Riddle Daytona Beach Campus' Det. 157 Air Force ROTC building May 21, 2016. Angell is stationed in Germany. Det. 157 Commander Col. Kimberley A. Ramos led the ceremony.

Kevin Garland ('12, DB) works for Latitude Engineering as an unmanned aerial vehicle (UAV) pilot flying the HQ-40 VTOL aircraft. He is a company representative for BNSF Railway's Federal Aviation Administration Pathfinder Project dealing with Beyond Visual Line Of Sight

operations flying in the U.S. airspace. Before getting involved with the BNSF project, Garland flew more than 900 hours as a UAV test pilot, flying the Naval Air Systems Command Tiger Shark UAV.

Shelbey Hooker ('12, WW) was awarded the National Business Aviation Association's (NBAA) 2016 Baldwin Business Aviation Management Scholarship at NBAA's 2016 Leadership Conference in San Antonio. Hooker is the HondaJet Southwest customer relations manager for Cutter Aviation.

Adam Luck ('13, PC) was appointed to serve on the Oklahoma State Board of Corrections through 2021. An Air Force veteran, Luck is the policy director for E Foundation for Oklahoma and the former state director of Right on Crime. He holds a B.S. in Global Security and Intelligence Studies from Embry-Riddle and a Master of Public Policy from Harvard University.

U.S. Army Lt. Col. Tim Timmons ('13, WW) retired Jan. 1, 2014, after a 21-year career in the Army. He recently earned his FAA Airline Transport Pilot certificate and was appointed assistant chief flight instructor for Cochise College in Douglas, Ariz.

Dan Brooks ('14, WW) was promoted to manager of customer support of CAMP Systems International. He has been with CAMP since 2014 and has been involved in aviation for the past 20 years. Brooks serves as a Federal Aviation Administration FAASTeam lead representative and AOPA airport representative for the Brookhaven Airport, since 2014. He is also the Embry-Riddle Alumni Network Leader for Long Island, N.Y.

Army Spc. Ziqi Liu ('14, DB) graduated from basic combat training at Fort Jackson in Columbia, S.C.

Ricky L. Nelson ('14, WW) graduated May 7, 2016, with a Master of Divinity degree from Assemblies of God Theological Seminary in Springfield, Mo.

Tech. Sgt. Travis R. Register ('14, DB) was named the Georgia Air National Guard 165th Airlift Wing's 2015 Non-Commissioned Officer of the Year. Register is a maintenance management analyst assigned to 165th Maintenance Operation Flight.

Jason LaShelle ('15, WW) is production manager of Greensea Systems Inc., a subsea robotics company. LaShelle formerly served with the U.S. Coast Guard, where he was in charge of systems integration and quality assurance.

Christopher Salley ('15, WW) is the head of sales and marketing for National Jets Inc., a fixed base operator at Fort Lauderdale International Airport, Fla. In this role he is responsible for property management, fuel sales, ground support and marketing. Additionally, he has served as the vice president of the South Florida Business Aviation Association for the past four years.

Jonathan Velazquez ('16, DB), a 36-year-old professor at the Inter-American University of Puerto Rico, is the first Puerto Rican and the first person from the Caribbean region to obtain a Ph.D. in Aviation from Embry-Riddle Aeronautical University. Velazquez was hooded and received his Ph.D. at Embry-Riddle's commencement ceremony May 10, 2016, in Daytona Beach, Fla.

Family News

1990s

Richard J. Greenwood ('94, DB) and his wife, Lesa, announced the birth of their daughter, Isabella Joy, on March 8, 2016. Richard was recently promoted to program manager for the new Citation Sovereign Program at FlightSafety International's Atlanta Learning Center.

2010s

Eric McBride ('13, WW) and his wife, Danielle, celebrated the birth of their second son, Joshua Michael, on May 6, 2016, in Melbourne, Fla. Joshua joins his older brother, Jacob. McBride is a first officer for JetBlue Airways.

Marriages/ Engagements

2000s

Aaron Glassman ('06, WW) and Nicole Du Flo were married Feb. 27, 2016, at the Chrysler Museum of Art in Norfolk, Va. Glassman is an assistant professor in the College of Business and chair of the department of management and technology at the Embry-Riddle Worldwide Campus in Norfolk, Va. Du Flo is the associate campus director at the Norfolk Campus.

2010s

2nd Lt. Jacob Dalton Howell ('14, WW) and Kasey Scott Junkin were married Dec. 4, 2015, in Brandon, Miss. Howell serves in the Mississippi Air National Guard and is attending pilot training at Vance Air Force Base in Enid, Okla.

Other

Retired Lt. Gen. Michael R. Moeller ('84, WW) was the commencement speaker for the May 7, 2016, Worldwide Campus commencement ceremony. He is deputy chief of staff for Strategic Plans and Programs at U.S. Air Force Headquarters in Washington, D.C. Moeller leads the development and integration of the Air Force's

long-range plans and the five-year, \$604 billion U.S. Air Force Future Years Defense Program.

Maj. Gen. Stayce D. Harris ('87, WW) was a featured speaker at the National Society of Black Engineers annual convention in Boston on March 23–27, 2016. For more about Harris: lift.erau.edu/trailblazer.



Scott Laurence ('95, DB), senior vice president for airline planning at JetBlue, spoke on Jan. 7, 2016, at a ceremony honoring the inauguration of JetBlue Airways' New York-to-Daytona Beach flight route. The ceremony was at the Daytona Beach

International Airport, shortly after the first JetBlue aircraft touched down.

Adam Cooper ('02, PC), **Tim Trank** ('03, PC) and **Randy Foote** ('07, PC), all engineers for ACSS in Phoenix, a joint venture company of L-3

Communications and Thales, visited the Prescott Campus in March as part of the annual ACSS Scholarship Award luncheon.

U.S. Navy Lt. Charles "Wingnut" Wickware ('05, PC), a U.S. Navy aviator, was featured in March 2016 in an *ABC News* story on fighter pilots beating back ISIS. An F-18 pilot, he was

serving aboard the USS Harry Truman at the time of the broadcast. View video: lift.erau.edu/videos-fall-2016.
Lt. Scott "Snooki" Brazelton ('07, DB) visited Embry-Riddle's Daytona Beach Campus on April 22, 2016. Arriving in an EA-18G Growler, he met with students, showed them the jet and toured the campus.

EAGLE AUTHORS

ON THE BOOKSHELF

Four Embry-Riddle faculty, **Brent A. Terwilliger** ('00, DB; '05, WW), program chair for the M.S. in Unmanned Systems at the Worldwide Campus; **David Ison** ('03, WW), research chair for the College of Aeronautics at the Worldwide Campus; **John Robbins** ('08, DB), program coordinator for the B.S. in Unmanned Aircraft System (UAS) Science at the Daytona Beach Campus; and **Dennis Vincenzi**, chair of the aeronautics department, undergraduate studies, at the Worldwide Campus, authored *Small Unmanned Aircraft Systems Guide: Exploring Designs, Operations, Regulations, & Economics*. The book will be published in fall 2016 by Aviation Supplies & Academics. "Three of the authors are alumni and many of our colleagues across all three campuses, 15 plus, have played a part in providing thorough review and recommendation of the text, so this is very much an Embry-Riddle Unmanned Aircraft Systems community effort," Terwilliger says. Given the Federal Aviation Administration's announcement of small-UAS regulations in June 2016, the timing of the book's release is significant. It covers many of the critical areas associated with the acquisition, operation and sustainment of small UAS. "Our hope is that it will be a useful resource to many of our students, alumni and partners," Terwilliger says.



Gary C. "GC" Tracy ('61, MC, Non-degree) authored a memoir entitled *An Aircraft Mechanic: When Embry-Riddle Educated Mechanics in Miami*. Because of the described historical relationship between Embry-Riddle and the then-all-female Barry College in Miami, Barry University has included the memoir in its archived special collections. Tracy earned an airframe and powerplant certificate from Embry-Riddle and went on to earn a bachelor's degree from York University and a master's degree from the University of Toronto.



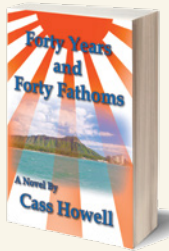
Wes Oleszewski ('87, DB) authored *Growing Up with Spaceflight*, a six-volume set covering projects Mercury, Gemini, Apollo, Skylab/ASTP and the Space Shuttle. The set is published by Oleszewski's publishing company, Klyde Morris LLC. *Growing Up with Spaceflight* takes a look at what it was like to be raised during the golden years of America's manned space program and watch its development from the outside. "Each volume is garnished heavily with technical details about each program, as well as previously overlooked, yet fascinating facts, all told in a narrative fashion," Oleszewski says.



George L. King ('87, DB) authored two action-adventure novels: *The Hidden Enemy*, which revolves around his fascination with black holes, and *The Ten Phases of Ansbach*, which draws from his experiences as a U.S. Army soldier stationed in Germany. King is a contracted financial consultant in the Los Angeles area.

ARE YOU AN AUTHOR?

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Cass D. Howell, professor of aeronautical science at Embry-Riddle's Daytona Beach Campus, authored *Forty Years and Forty Fathoms*, a novel published by Bluewater Press in 2016. Set in the early 1980s in Hawaii, this mystery thriller explores themes of revenge, love and redemption. Howell is a retired Marine Corps officer and the son of a Pearl Harbor survivor.

Ashley Marie Guindon ('10, DB)

FEB. 27, 2016

The first day on the job as a new police officer with the Prince William County (Va.) Police Department, Ashley Guindon ('10, DB) was killed in the line of duty while responding to a deadly domestic incident. She was 28.

"It was part of her makeup," says Chris Bonner, associate professor of homeland security at Embry-Riddle's Daytona Beach Campus, referring to Guindon's desire to protect and serve others. Bonner, a retired FBI agent, says Guindon expressed an interest to him in law enforcement, following a lecture in which he shared some of his career experiences. A member of the U.S. Marine Corps Reserve from 2007 to 2015, Guindon was already serving her country at the time.

She completed a B.S. in Aeronautics with minors in psychology, homeland security and aviation safety. Interning at the Prince William County Police Department with the Special Victims Unit, Guindon graduated from the Police Academy in June 2015. After a leave of absence, she was sworn in Feb. 26, 2016.

More than 100 members of the Embry-Riddle community gathered to honor Guindon at a memorial service March 22, 2016, at the Embry-Riddle Center for Faith and Spirituality in Daytona Beach, Fla. A scholarship in her name was established at the university for students seeking a degree in homeland security or global conflict studies, with the intent to pursue a career in public service.

"Ashley was a remarkable young woman. As a police officer and U.S. Marine, she embodied the positive attributes of duty, honor, country and service above self. She was driven to excellence," Bonner says. "It is tragic that she was killed in the line of duty on her first day on the job as a police officer; however, it is more important to note that she died while protecting her community. She will always serve as an example as to the best that Embry-Riddle Aeronautical University produces in an alumnus."

To contribute to the Ashley Guindon Memorial Scholarship, visit givingto.erau.edu/guindon.



In Memoriam

1940s

Edward A. Curry Jr. ('41, BFTS, Non-degree)
Jan. 16, 2016

1950s

Ralph F. Gilnack ('53, MC)
Feb. 14, 2015

1960s

Henry "Ray" Raymond Bazo ('63, MC)
March 4, 2016

Dale D. Tassell ('68, DB)
May 25, 2015

1970s

Sid Shelby Barling Jr. ('71, DB)
Jan. 21, 2016

Paul M. Estes ('71, DB)
Sept. 14, 2015

Erik J. West ('75, DB)
Jan. 1, 2016

1980s

Col. Gary E. DeKay ('80, WW)
March 25, 2016

Robert "Bob" A. Matthes ('83, PC)
April 1, 2015

Lt. Col. Richard William Arnold Sr. ('86, WW)
Oct. 8, 2013

Stephen D. Ford ('86, '88, WW)
Feb. 7, 2016

1990s

James L. Howell ('91, WW)
June 21, 2015

Joseph G. Kendall ('91, DB)
March 13, 2015

David P. Bjorneboe ('92, DB)
April 20, 2016

Leslie C. Howard ('93, WW)
June 6, 2015

Lt. Col. Tyson William Hummel ('93, PC)
March 20, 2016

Stephen L. Wood ('93, WW)
March 20, 2015

James Allan Terry Jr. ('94, DB)
Dec. 19, 2015

James H. "Jim" Morris ('97, WW)
June 9, 2015

Clarence C. Aycock ('98, WW)
May 9, 2015

2000s

Debra Roob Costello ('01, WW)
May 2, 2016

James J. "Jim" Ballough Jr. ('04, WW)
May 3, 2016

Matthew C. Goodshaw ('10, WW)
April 30, 2015

Christopher Richard "Ricky" Hope ('10, DB)
April 27, 2015

Harry Alex Senopoulos III ('15, DB)
May 13, 2016

Other

Mortimer R. Feinberg, Ph.D. (HonDoc '96)
Dec. 10, 2015

Edgar D. Mitchell (HonDoc '96)
Feb. 4, 2016

Jonathan Harrington (DB student)
Feb. 5, 2016

Sami Almulhim (DB student)
Feb. 6, 2016

Elizabeth "Betty" Nelson (Embry-Riddle Professor Emerita)
March 25, 2016

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Carolina Anderson ('13, DB) is **the first** woman to graduate with a Ph.D. in Aviation.



Arlando Teller ('95, PC) is **the first** in his family to attend and graduate from college.



Beverley Drake ('77, DB, Flight Training; '02, '05, WW) is **the first** Embry-Riddle alumna to be featured on a postage stamp.



GUYANA



Retired Brig. Gen. Dan Woodward ('80, DB) and retired Maj. Gen. Margaret Woodward ('97, WW) are **the first** married active duty Air Force General Officers.



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