

School of Graduate Studies Newsletters

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July 2018 School of Graduate Studies Newsletter

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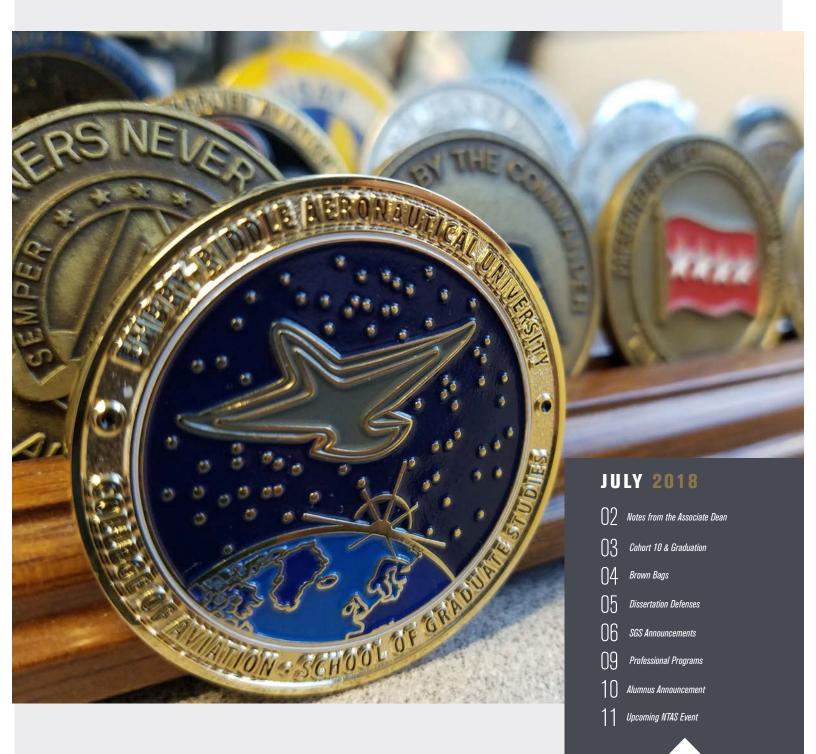
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SCHOOL OF GRADUATE STUDIES NEWSLETTER

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY | COLLEGE OF AVIATION



NOTES FROM THE ASSOCIATE DEAN

CAN YOU EXTRACT ESPRIT DE CORPS FROM A COIN?

I remember the first time I was presented with a symbolic coin. It was 25 years ago, and I had just flown the 4-star general in charge of U.S. Special Operations Command to his destination, despite very tricky weather that had required me to fly, shall we say, creatively. As the general deplaned, he quickly shook my hand, and I felt something cold and heavy in my palm. It was an odd feeling at first, until I looked down at my hand and saw a coin bearing the emblem of the Special Operations Command. I looked up and saw the general smiling and giving me a thumbs up as he walked away. In that simple act, I felt pride at having accomplished my mission, but also I felt connected to the general's team and to the values that his people held so dear.

These symbolic devices we call "challenge coins" or "spirit coins" are curious artifacts. They vary in size and weight. Most are round, but a few are oddly shaped. Some have straightforward designs while others are festooned with all sorts of imagery. The origins of such coins are shrouded in myth and folklore. My favorite explanation is the story of the World War I pilot who was downed behind enemy lines then captured and stripped of identification and uniform markings. He managed to escape only to be captured by resistance fighters. His new captors were ready to execute him as an enemy fighter when the pilot pulled out a coin bearing his squadron's emblem, which he had managed to hide all along, and then one resistance fighter recognized the symbol. According to the story, the pilot was then given a bottle of wine and helped back to friendly territory. I don't know if it's true, but it's still a great story!

Today, my desk displays coins from government agencies, aircraft manufacturers, private organizations, military units, and academia. Each coin triggers a memory and represents a bright moment in my life when, at least for a brief time, another organization's esprit de corps reached out and enveloped me.



Dr. Antonio I. Cortés Associate Dean

Esprit de corps is a phrase that made its way from French into English in the late 18th Century. The Collins Dictionary defines it as, "A feeling of loyalty and pride that is shared by the members of a group who consider themselves to be different from other people in some special way." Other definitions describe a common spirit that inspires devotion, enthusiasm, and a sense of honor.

Here at the School of Graduate Studies, our faculty and staff recently produced an emblem that symbolizes our esprit de corps, and we have now placed the depiction on our own spirit coin. We are the third department in the college to produce a coin and will present it to those who have helped the school in some way or to those who exhibit our shared spirit in some fashion. Our coin shares our devotion to expanding the knowledge boundaries of our scholarly discipline in service of our aviation industry. It is a tangible symbol of our zeal for tackling the most

vexing research questions facing aviation operations. So, yes, I do believe we can extract esprit de corps from a coin, and we do so all the time.

Stay on target!



COHORT 10

On behalf of SGS, we would like to congratulate our new Cohort 10 for Fall 2018! They will be arriving here on campus in Daytona Beach, FL for their first residency week that will begin on Monday, August 13th and run through Friday, August 17th.

Tara Samuels Andrew Koch Joao Souza Dias Garcia Paul Alp (David) Guan Leng Lim Tracy Lamb Christian Jaedicke Adil Elmassari Dezso Silagyi Cody Sweatt Trong Nguyen Danita Daghdasarin

GRADUATION

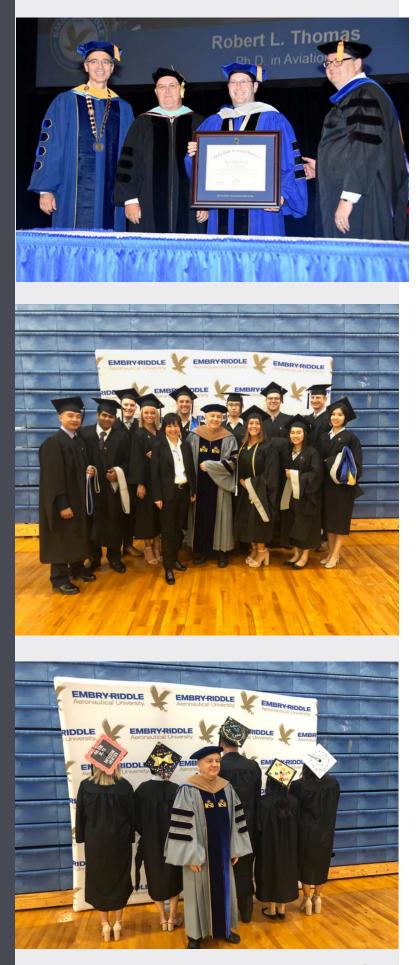
SGS is very proud to announce our Spring 2018 Graduates:

Master of Science in Aeronautics

Andrey Babin Robert Bauer Quirijn Berendschot Ziyi Dong Yu Feng Pamela Garcia Sorose Khandej Garrett Lamarche Sumerr Paxton Saralee Pruksaritanon Govindan Ramchander Katelyn Ritter

Doctorate of Philosophy in Aviation

Dr. Robert (Bob) L. Thomas



BROWN **BAGS**

On Tuesday, April 17, 2018, from 2:30 pm to 3:30 pm in the College of Aviation, Dr. Kim Chambers, Associate Director of Center for Teaching and Learning (CTLE), gave an interesting presentation about "Career Development Plan for Master's Level Students". This was a relaxed meeting, and students felt free to ask questions to build their road map for their career paths. Thank you for your insight and advice, Dr. Chambers! We will be continuing with the Brown Bag sessions in the fall.

How to Become a Professor Forum

SGS's second installment of "How to Become a Professor" Forum was held on Thursday, April 26, 2018, from 4:00 pm to 5:30 pm in the College of Arts & Sciences. The theme was "How can I get your job?" and featured a panel of existing faculty; Dr. Tom Haritos, Assistant Professor of Aeronautical Science, Travis Billette, Instructor of Aviation Maintenance Science, Anthony Brickhouse, Associate Professor of Aerospace and Occupational Safety, and Marisa Aguiar, our very own Ph.D. student who is currently in the Doctoral Student Teaching Program.

The layout of the forum was very successful in that the panelists each spoke about their job and how they got there, and then it was opened up for questions. There were 11 graduate students who attended in person as well as 10 students who participated online through Eagle Vision.

A big thank you to Dr. Kim Chambers who moderated the forum and also to Dr. Haydee Cuevas for organizing the event.







DISSERTATION **DEFENSES**

Isaac N. Munene, Ph.D. successfully defended his dissertation on Thursday, April 26, 2018, on the Daytona Beach Campus. The dissertation title was "Safety return on investment (ROI): The broader adoption of CFIT-avoidance technology adoption". The committee was chaired by Dr. Mark Friend, Professor for the School of Graduate Studies. His research provided a method of estimating the potential return on investment that could be achieved if operators were to adopt the controlled flight into terrain avoidance technology more broadly. The Monte Carlo simulation results showed that the turbine-single category of rotorcraft would experience the highest ROI, followed by the piston category and twinturbines. It was recommended that the technology should be more broadly adopted by the piston and turbine-single operators, while twin-turbine should evaluate its adoption against the impact of the regulatory changes for the helicopter air ambulance (HAA) operations.

SGS is very proud of your achievements, and we congratulate you, Isaac!

Jennifer N. Hunt, Ph.D. successfully defended her dissertation on Monday, May 14, 2018, on the Daytona Beach campus. Her dissertation was titled "Low-fare flights across the Atlantic: Impact of low-cost, long-haul, trans-Atlantic flights on passenger choice of carrier". The committee was chaired by Dr. Dothang Truong, Professor for the School of Graduate Studies. Full-service carriers (FSCs) have long ruled the trans-Atlantic market, due to the absence of low fare competition, which has kept airfares high. However, renewed interest in low-cost, long-haul (LCLH) flights was prompted by efficient aircraft, low fuel prices, liberalization of air markets, and low-cost carriers' growth opportunities. Since 2013, multiple LCLH carriers have commenced trans-Atlantic operations, and their market share has grown to 6%. In response, FSCs are establishing their own LCLH subsidiaries and/or introducing basic economy airfares to more effectively compete in the trans-Atlantic market.

Congratulations, Jennifer! You did an outstanding job.







SGS Announcements

OUR STUDENTS, STAFF, FACULTY, AND ALUMNI

Several of our current Ph.D. students had their work accepted to present at both the 2018 UAA Collegiate Aviation Conference & Expo and the 2018 National Training Aircraft Symposium (NTAS). Co-authors also include other COA and COAS graduate and undergraduate students.

Choi, W. J., & Winter, S. R., (2018, September). The impact of cross-cultural factors on airline mergers: The implication for strategic partnerships in the airline industry. Poster presented at the 2018 UAA Collegiate Aviation Conference & Expo, Dallas, Texas.

Choi, W. J., Kasim, K. O., & Winter, S. R., (2018, September). The multicultural environment of airport management: Implications and key success factors of airport privatization with a cultural perspective. Poster presented at the 2018 UAA Collegiate Aviation Conference & Expo, Dallas, Texas.

Baugh, B. S, Musselman, B. T., Simpson, M., Winter, S. R., & Rice, S. (2018, September). Commercial space travel for the masses but will people ride? A preliminary analysis. Poster presented at the 2018 University Aviation Association 71st Conference, Dallas, Texas.

Baugh, B. S., Bracewell, K. M., Takano, U., Milner, M. N., Anania, E. C., Ragbir, N. K., Gupta, M. B., Garcia, D. M., Valecha, D. O., Marte, D. A., Winter, S. R., & Rice, S. (2018, August). Personal safety culture: A new measure for general aviation pilots. Presentation at the 2018 National Training Aircraft Symposium, Daytona Beach, Florida

PUBLICATIONS

Paul L. Myers III (Ph.D. student), **Arnold (Bud) W. Starr** (Ph.D. student), and **Kadie Mullins, Ed.D.** (SGS Faculty Member) published an article in the IJAAA (International Journal of Aviation, Aeronautics, and Aerospace) in February 2018 titled "Flight Simulator Fidelity, Training Transfer, and the Role of Instructors in Optimizing Learning". Please use this link to read their abstract and article in its entirety: https://commons.erau.edu/ijaaa/vol5/iss1/6/.

Kabir O. Kasim, a current Ph.D. student, recently published his article "Assessment of Small Unmanned Aerial Systems Operations in the National Airspace System" (MS #1161) in the Journal of Aviation Technology and Engineering, which may be accessed at the following URL: <u>https://docs.lib.purdue.edu/jate/vol7/iss2/6</u>.

SGS ANNOUNCEMENTS continued

AWARDS



Congratulations to the SGS student award winners **Bob Maxson** (Outstanding Ph.D. Student) and **Saralee Pruksaritanon** (Outstanding MSA Student). The selections were made based on the nominations and votes submitted by the Ph.D. and Master's faculty using the following criteria: academic achievement, integrity, leadership, and service to the Ph.D./Master programs. The COA Academic Awards Ceremony took place on Thursday, April 19, 2018, in the COA Atrium on the Daytona Beach Campus.



Dr. Gregory Woo

SGS is pleased to announce that Gregory Woo, Ph.D., December 2017 graduate, has received the Aerospace Human Factors Association's Stanley N. Roscoe Award for 2018. He was recognized at the association's luncheon and business meeting on May 7, 2018, in Dallas, Texas. The award criteria are as follows:

- Significance of the problem and innovativeness of the approach
- Review of related research
- · Effectiveness of the research design and analysis
- Interpretation of results
- Theoretical and practical value of the work
- Clarity of writing



"I am deeply honored to be recognized and to receive this prestigious award from the Aerospace Human Factors Association (AsHFA). My research and dissertation benefited from the questions, mentorship, and support I received from my Volpe Center colleagues and my dissertation committee. Many thanks to everyone who supported my research and endured my efforts to complete my degree." -- Gregory Woo

Congratulations, Greg, on this significant achievement!

SGS ANNOUNCEMENTS continued

AWARDS

Brian Musselman

Lt. Col. Brian T. Musselman, USAF and Ph.D. student, was named the 2018 recipient of the Kent K. Gillingham Award. He is being honored for his positive impacts on every aspect of aerospace physiology. The award was presented during the Aerospace Medical Association (AsMA) Honors Night Ceremonies, May 10, 2018, at the Hilton Anatole Hotel, in Dallas, Texas.

A board-certified expert in aerospace physiology, Lt. Col. Musselman has led U-2 full pressure suit operations; investigated five Class A mishaps and numerous physiological events; and directed physiology, spatial disorientation, and fatigue research. The Air Combat Command Director of Operations hand-selected Brian to assist with the USAF reply to the DoD Inspector General for a fatal F22A mishap. His aerospace physiology experience was paramount to the team's analysis, which he eventually briefed to the Chief of Staff of the Air Force.

On behalf of SGS, we are so proud of your prestigious award, Brian!





Valerie Martindale, Ph.D., FAsMA, CAsP, President of the Aerospace Medical Association (left), Brian Musselman (center), and Brig. Gen. Dr. Erich Roedig, GAF(Ret.) (right), representing the sponsor AMST. Photo by Pamela C. Day

PROFESSIONAL PROGRAMS AT DAYTONA BEACH CAMPUS

As part of Embry-Riddle's commitment to continuing professional education and lifelong learning, ERAU hosts a variety of aviation-focused short courses. These courses are tailored for industry professionals involved in the operations, management, and supervision of aviation organizations as well as welcoming trainees from multiple organizations around the globe. ERAU is able to create customized programs for organizations and offer them on campus or onsite.

Certificate of Management in Aviation Safety

- Oct. 22 26, 2018: OSHA & Aviation Ground Safety
- Oct. 29 Nov. 2, 2018: Aviation Safety Program Management
- Nov. 5 9, 2018: Aircraft Accident Investigation & Management

ERAU Seminars:

- Sept. 18 20, 2018: System Safety Engineering and Certification
- Oct. 9 11, 2018: Aviation Cybersecurity Management
- Nov. 12 14, 2018: Media Relations in Accident Investigation
- Nov. 27 29, 2018: Aviation Safety Management Systems (SMS)
- Dec. 4 6, 2018: U.S. Aviation Law

For more information on our Professional Education Programs, please contact Sarah Ochs at <u>dbproed@erau.edu</u> or call her directly at 386.226.6928. You can also visit the webpage at <u>www.erau.edu/dbproed</u>.

The Worldwide Campus also offers short courses through their Office of Professional Education. The following all start on October 15, 2018:

- sUAS 1100 sUAS Design and Configuration
- sUAS 1400 sUAS Inspection Course
- sUAS 1500 Fundamentals for Starting an sUAS Small Business
- sUAS 2000 sUAS Ground School
- sUAS 3000 sUAS Fundamentals for Public Safety
- AVS-1000F Private Pilot Ground School
- AVS-1100F Instrument Rating Ground School
- AVS-1200F Commercial Pilot Ground School
- FBO Management Certificate

Please contact the Office of Professional Education at training@erau.edu if you are interested.

ALUMNUS ANNOUNCEMENT

SGS Alumnus Inducted into Hall of Fame.

We are proud to congratulate 2017 alumnus Dr. John Maris for his induction into the Canadian Aviation Hall of Fame (CAHF) at a ceremony in Calgary, Alberta, on June 7, 2018.

Canada's Aviation Hall of Fame Panthéon de l'Aviation du Canada



The CAHF was founded in 1973 in Edmonton and is currently based in the Aviation Hangar at the Reynolds-Alberta Transportation and Industry Museum at Wetaskiwin, Alberta, just south of Edmonton. As described by the CAHF, inductees are key influencers in Canadian

aviation who have, "drunk deep at adventure's well" and who have "set permanent records for pioneering achievements ... for enterprise ... for unfailing courage ... that have stood the test of time." The purpose of the CAHF is to raise the public's awareness of aviation history and, as described by the CAHF, to "kindle the spirit of adventure in Canada's youth."



Dr. Maris' stellar career started as a Canadian Armed Forces antisubmarine pilot and test pilot, then continued as a team leader in the Canadian Space Agency and a key person in the development of the robotic arm used on the International Space Station. He is currently the President of Marinvent Corporation, an award-winning Canadian aerospace firm based in Montreal. Dr. Maris was one of four individuals honored as new members at this month's induction ceremony. ERAU was represened by Dr. Antonio Cortés, who was Dr. Maris' dissertation advisor and one of several who nominated Dr. Maris for induction into the CAHF.

The induction ceremony opened with bagpipers escorting the inductees to the stage, followed by a traditional Scotch whisky toast. During his acceptance speech, Dr. Maris recognized the tremendous support received from his family over the past decades. His wife, son, daughter, and soon-to-be son-in-law were all in attendance. Dr. Maris then explained the myriad contributions of the Canadian aerospace industry to the world, including aircraft, simulators, talent, and technology ... including making the landing gear for the Apollo lunar modules! The guest speaker was Canadian astronaut Dave Williams, who flew aboard space shuttles Columbia and Endeavor, accumulating some 687 hours in space, including three space walks. Mr. Williams's speech centered on the importance of mentoring and being role models for the new generation of aerospace professionals as we return to the Moon and look ahead to human missions to Mars.



Congratulations, Dr. Maris and family, on this extraordinary achievement!

Pictured Above: Dr. Maris and wife, Julie, a Daytona Beach native Below: Dr. Cortés and Dr. Maris

UPCOMING EVENT

SAVE THE DATE! AUGUST 13 - 15, 2018 Registration is Now Open

The National Training Aircraft Symposium (NTAS) serves as a forum for aviation professionals from academia, government, and industry to exchange ideas and learn about ways to address emerging issues in the aviation industry. With the technological advances in automation and the proliferation of Unmanned Aircraft Systems (UAS), this year's theme is focused on **The Changing Role of the Pilot**. The conference will be held August 13 - 15, 2018, at Embry-Riddle Aeronautical University's Daytona Beach campus.

Featured Keynote Speakers



Earl F. Weener, Ph.D. NTSB Board Member



Dr. Robert "Buck" Joslin FAA CSTA Flight Deck Technology Integration Become a 2018 NTAS Sponsor! For more information, visit the conference website at embryriddle.edu/ntas



COLLEGE OF AVIATION SCHOOL OF GRADUATE STUDIES NEWSLETTER

Please feel free to send all updates/announcements to Katie Esguerra at dunnk2@erau.edu for future newsletters.

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