Annual Meeting

by Dr. Kenneth Witcher, Dean, College of Aeronautics
Embry-Riddle Aeronautical University—Worldwide

The full time faculty of the College of Aeronautics held their annual meeting March 17-19. Last year, at our first meeting, the strategy was to identify “who we were as a college.” This year, the strategy centered around identifying “who we are as Embry-Riddle.”

The agenda and events were planned to support this strategy and included focus areas of quality academics, growing the brand, and developing our faculty. A secondary focus area was “strengthening the college” and included the concepts of living the mission statement, not accepting the status quo, and thinking big. Although we’re still assessing the outcome; initial feedback indicates the strategy developed and implemented by the leadership team was successful. Following are a few of the college’s accomplishments I shared during the opening session.

Breaking NEWS! BOT approves the WW COA BSUS & BSSM Programs to begin Aug. 2015!!
TEACHING EFFECTIVENESS

- Courses taught by COA FTF since Jul 2014 - 226
- MMTs - 55 GR and 60 UG
- FCCAs – 262 since Jul 2013
- Virtual lab – 262+ students
- Faculty Evals completed:
  - FY 13 – 214
  - FY 14 – YTD 158
- Dual Enrollment:
  - 6 High Schools involved
  - Spring 15 – 179 students registered
  - Since 2013 420 students received dual enrollment credit

DEGREES CONFERRED

- Worldwide:
  - AY 12/13 Total = 4254, COA = 3066
  - AY 13/14 Total = 3899, COA = 2711
- University Total AY 13/14 = 5338
  - COA = 2711
  - 50.7%

SERVICE

- AP 04/05 since July 13:
  - 133 approved
- Lead the Worldwide IAB
- Provide the BoT WW faculty representative

SCHOLARSHIP

- FTF listed as course developers - 107 courses
- Journal (IJAAA) Papers – 27,
  Total Downloads – 6408, Downloads in the past year – 6261 – Downloads in the past week – 222
BSA Degree Accredited by AABI

by Dr. Andy Anderson, Associate Dean, Aeronautics

After six years of working with the Aviation Accreditation Board – International (AABI), the Bachelor of Science in Aeronautics (BSA) degree program has been accredited. An incredible team of faculty, students and staff worked diligently to complete a comprehensive Self Study, looking at degree curriculum, program and course learning outcomes, assessment, and continuous improvement. The Self Study also looked at faculty, enrollment management, student services, and Campus Operations.

After submission of the Self Study, the AABI visited a total of 16 locations, interviewing faculty, students and staff. Facilities and academic support equipment were also inspected. Locations included Campuses in Hawaii, the High Desert, Seattle, Virginia and Florida, culminating in the entire team traveling to Worldwide Headquarters for a three day visit.

In February, AABI’s Board of Trustee’s voted to accredit the BSA, commending the degree program for academic quality and rigor in curriculum and program assessment.

AABI recognizes educational institutions and their professional programs that achieve and maintain a level of performance, integrity and quality that entitles them to the confidence of the educational community, the industry and the public they serve.

Accreditation assures students and prospective employers that an educational degree program has met stringent industry standards of quality. It ensures that graduates have received quality training and education and are capable of performing a broad range of professional responsibilities.

The College of Aeronautics will be looking at additional programs for future accreditation.

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We now have the first program delivered by multimodalities on a global stage to be accredited by this respected organization. This is great news and validates the value of this degree to our students and industry.

Dr. Andy Anderson led a team who put in a ton of work to make this a reality; we are so proud of the accomplishment... outstanding work!

—Dr. Kenneth Witcher

"
Humans have taken the development of machines and technology to unprecedented levels of reliability. In aviation for instance, aircraft airframes, engines, automation, and other systems function almost flawlessly. Indeed, it is the human being that is responsible for approximately 80% of all aviation operations failures resulting from operational procedures and systems design failures. The same is true for most other industries with operational environments in which humans work in conjunction with machines and automation. Because of this it is the human that provides for the next evolutionary, and perhaps even revolutionary, leap in improvements in efficiency, effectiveness, and safety within aviation and other similar industries. This is the new operational frontier and it is this human factor that provides the next great opportunity to move operations and systems forward.

This evolution in operations and systems will not occur by itself. It will require professionals who understand how humans function, and who can translate that understanding into new and innovative operational procedures and systems designs that integrate human functioning with the reliability and capabilities of machines and automation to raise operational efficiency, effectiveness, and safety to new levels. It will require Human Factors (HF) professionals.

ERAU-WW is striving to become the premier educator for those HF professionals. Beginning in August of this year, the WW Master of Science in Human Factors (MSHF) degree program will begin educating those professionals. This program will provide students with a strong foundational working knowledge and applications skills of human performance, both psychological and physiological. Studies in human cognition, performance, and physiology will provide that core knowledge in a highly integrative format. From there, students will choose one of two paths and apply that core knowledge in practical, real-world ways, either in operations through the Aerospace track or in design through the Systems Engineering track, and always with a focus on leadership within industry. And for the truly ambitious, students can choose to pursue both tracks.

The ERAU-WW MSHF program is focused on research, with two options available to students. The first is the 36-credit hour capstone option, which allows for the most classroom instruction and then requires the research based capstone option to complete the degree. The second is the 30-credit hour thesis option, which provides a greater original research focus by requiring slightly less classroom instruction. Either of these paths will result in students, who possess a deep and broad understanding of HF fundamentals that will prepare them to immediately contribute constructively to, and to lead within, any industry that incorporates the human component.

With the MSHF degree program ERAU-WW will continue its world leadership in aviation higher education by developing professionals who will make a difference in the forward-looking field of human factors. HF will play an ever-increasing role in not just aviation but in any field in which humans and machines must work together harmoniously to result in efficient, effective and safe operations. And ERAU-WW MSHF graduates will lead those industries down that path.
MOOC—Aviation Accident Investigation Began March 23rd

More than 2000 students registered in just 5 days for the Aviation Accident Investigation MOOC (Massive Open Online Course) that began March 23rd and ends April 19. This course reached its capacity, and registration was closed. Future offerings are possible. Social media played a big part in getting this great turnout! Dr. Katherine Moran took the lead on this project.

Lecturers are Dr. Katherine Moran, Dr. Dennis Vincenzi, and Jeff Jennings. Additional Faculty Support/SMEs are Paddy Maloney, Dr. Patti Clark, Gloria Wilson, and Peter Hermes. Canvas Support was provided by Scott Burgess, Dr. Katherine Moran, and Linda Weiland.

A special thanks to IDD and IT: Felix DeBrito, Mark Leary, Kevin Norris, and Daniel Waddell. Keith Wilson provided Email Support, and Gloria Wilson Tweet Support. Molly Justice Wainscott assisted with the Press.

A great team effort, and kudos to all who worked on this project.

Check out the Crash Lab Trailer at https://www.youtube.com/watch?v=EDr5qJoKgUc&feature=youtu.be

UAS Workshop Photos—Germany

Dr. Brent Terwilliger, chair of Worldwide’s Master of Science in Unmanned Systems with the UAS Short Course students in Berlin. The next UAS Short Course will be in San Diego, CA April 2nd –3rd http://proed.erau.edu/programs/specialized-industry-training/unmanned-aircraft-systems-workshop-ww/index.html
Congratulations to Dr. Jon Campbell! Patent to be issued.

Dr. Campbell’s patent application “Aerospace Laser Ignition/Ablation Variable High Precision Thruster” is soon to be issued a patent. This is a foundation patent meaning that it will support several more subsystem ones coming in the future. “The laser ignition/ablation propulsion system that captures the advantages of both liquid and solid propulsion. A reel system is used to move a propellant tape containing a plurality of propellant material targets through an ignition chamber.

When a propellant target is in the ignition chamber, a laser beam from a laser positioned above the ignition chamber strikes the propellant target, igniting the propellant material and resulting in a thrust impulse. The propellant tape is advanced, carrying another propellant target into the ignition chamber. The propellant tape and ignition chamber are designed to ensure that each ignition event is isolated from the remaining propellant targets. Thrust and specific impulse may by precisely controlled by varying the synchronized propellant tape/laser speed. The laser ignition/ablation propulsion system may be scaled for use in small and large applications.” —Marshall Space Flight Center Technology Transfer Office

For more information: [http://technology-msfc.ndc.nasa.gov/patent/patent_MFS-32655-1](http://technology-msfc.ndc.nasa.gov/patent/patent_MFS-32655-1)

Dave Hunt has completed his third (yes, third) Master’s Degree. Dave will have a master’s of Science in Project Management conferred on 31 March. Congratulations Dave!

Dr. Tim Holt has been named a Fellow of the Royal Aeronautical Society.

Dr. Holt is the Director of Dual Enrollment Programs in the College of Aeronautics.

Established in 1866, the Royal Aeronautical Society is the world’s only professional body dedicated to the aerospace community. Fellows belong to the highest grade of society membership and are recognized for their outstanding contributions to the aeronautics profession.

At a March 2, 2015 UAS Panel discussion at the NBAA (National Business Aviation Association) Leadership conference, Dr. Brent Terwilliger was named the chairman of the CAMC (Corporate Aviation Management Committee’s) UAS subcommittee.

Honors, Awards & Announcements

Embry Riddle Named Among Top Schools for Military and Veterans for Sixth Straight Year:

FOR more info:
http://news.erau.edu/top-news/embry-riddle-named-among-top-schools-for-military-and-veterans-for-sixth-straight-year

IJAAA Promotes with a New Facebook page

https://www.facebook.com/ERAUJournal
Check out the new Facebook page for the International Journal of Aviation, Aeronautics, and Aerospace.
FAA Honors Terry “TJ” Porter, Sr. with Master Mechanic Award

The Federal Aviation Administration has honored Terry “TJ” Porter with the Charles Taylor “Master Mechanic” Award. T.J. an Adjunct Associate Professor in the College of Aeronautics has instructed various courses: Professional, Undergraduate & Master’s courses in Aviation, Aeronautics and Space; System Safety Design (MIL-STD-882), Human Factors, Aircraft Accident Investigations, Maintenance Resources Management, both in the classroom and by ERAU-WWW online courses. He also is a Course Monitor/Course Developer for several courses. The award honors Charles Taylor, who was the first aviation mechanic in powered flight, and mechanic for the Wright Brothers. Eligibility requires that the candidate be a U.S. citizen, and have worked for 50 years in aviation as an FAA-certified mechanic. T.J. Porter and Harold Jacob Winfield (also awarded the Master Mechanics Award) both have a perfect lifetime safety record and have zero enforcement actions taken against them. Less than 2,000 people have received these awards under the worldwide FAA system.

Porter described himself as Bloomfield Iowa Farm boy. During the Vietnam era, T.J. served as maintenance and crew on EC121K aircraft, and made factory modifications on DC-8 and DC-9 aircraft. He started a community airport and maintained it for 11 years. He is still FAA-certified as a mechanic, inspector, pilot for single and multi-engine aircraft, flight instructor and ground instructor.

“I thought about flying as a young person, watching birds fly. I thought, ‘Wow, wouldn’t that be great,’ and here I am. I can get myself out of stalls. I think of the birds, and the way they tilt their bodies to land without stalling,” Porter said.

He credits his wife, Margaret, for giving him the strength to achieve. “I certainly wouldn’t be where I am today without a strong woman.”

As for his goals, “I’d like to go back into aviation on one more big, meaningful project.”

“The greatest feeling is when you’re above the clouds,” he said. “You see the top of the clouds, the infinite above you, the infinite all around you,” he said. “I’ve flown in storms. It’s always the serenity – you hear this little noise of air going past you, and that’s it. The only thing better is probably a balloon.”
Real World Design Challenge State Competition

It is that time of year again, we are looking for volunteers to serve as judges to review student team Engineering Notebook submissions for the FY15 Real World Design Challenge state competition.

If you are interested, please email Brent Terwilliger terwillb@erau.edu as soon as possible. The judging will run from 1-10 April, with the notebooks being assessed and scored against a comprehensive judging rubric. Winners will be announced from 10-20 April.

Details regarding this year's challenge are contained in the following documents and files

Overview of FY15 State Challenge:

Detailed Background:

Scoring Rubric:
http://support.ptc.com/appserver/wcms/standards/filethumbredirect.jsp?im_dbkey=163739&im_language=en

Engineering Notebook Template:
http://support.ptc.com/appserver/wcms/standards/filethumbredirect.jsp?im_dbkey=163738&im_language=en

“Globe” Website Launches

A website has been designed to provide relevant and interesting content to the Worldwide students in an effort to encourage engagement and conversation.

We are also hoping that we can help students connect with the greater ERAU family by sharing news about Residential campuses and University activities. Please take a moment to check it out. http://globe.erau.edu/

If you have story ideas recommendations please submit them too Molly Justice, Worldwide Director of Communications.
INVEST IN YOURSELF //// Submit Your Research Proposal for Funding
Consideration from the $40,000 Worldwide Research Award Allocation.

Note that approximately $25,000 of the award allocation has been earmarked for Full-Time Faculty; the other $15,000 is for adjunct faculty (campus and online) as well as graduate students.

WHO’S ELIGIBLE
Worldwide Faculty – All faculty, campus and online
Worldwide Graduate Students – campus and online, with the written endorsement of a Faculty Advisor.

Graduate student applicants do not need to be working on their Capstone to qualify; however, they must secure the written endorsement of a Faculty Advisor. Faculty Advisors will be paid $500 and are expected to act as mentors.

Faculty may work collaboratively on an award project (maximum of two faculty members per team); however, only one award will be allowed per research project. Student award winners must work individually under the guidance of a Faculty Advisor. Winners of past Worldwide research award competitions are eligible to participate again if they submit their “Summation(s) of Research Work” prior to the published deadline(s).

Award recipients must use their funding by June 30, 2016.

IMPORTANT DATES
April 17, 2015 /// Brief preliminary application (Step I) due to Dr. Aman Gupta via email at aman.gupta@erau.edu.
April 27, 2015 /// Initial recommendations emailed to applicants.
May 15, 2015 /// Completed application packages (Step II) due to Dr. Aman Gupta via email at aman.gupta@erau.edu. No late application packages will be accepted.
June 19, 2015 /// Announcement of award winners.
Mid-July 2015 /// Start date of awards.
June 30, 2016 /// End date of awards. Remaining funds will be returned to the Chancellor’s Office.
August 31, 2016 /// Summation of Research Work due to the Embry-Riddle Grants and Contracts Administration Office.

MORE INFORMATION
For questions on the Worldwide Research Award Competition, contact Senate Research Committee members:
Dr. Aman Gupta: aman.gupta@erau.edu
Dr. MK Gorman: gormanm@erau.edu
Dr. David Ison: david.ison@erau.edu
Ms. Lisa Smith: lisa.smith@erau.edu

The application package can be found at worldwide.erau.edu/research-award
Call for Proposals -
23rd Annual Bollinger/Rosado Symposium

The Faculty Development and Benefits Committee of Embry-Riddle Aeronautical University Worldwide is soliciting abstracts for papers to be presented at the Symposium.

The theme for this symposium is: Reaching New Heights

Embry-Riddle Aeronautical University - Worldwide is a leader in aviation and aerospace education, professional development and research. Worldwide faculty are focused on advancing all things related to aviation and aerospace and are focused on reaching new heights through their teaching, research and by finding solutions to real-world problems. The 2015 Bollinger-Rosado symposium seeks to disseminate these research and applied accomplishments by giving faculty members a platform to share their unpublished works related to advancing the aviation and aerospace fields. If you wish to share and present your work at this venue, please follow the process summarized below.

Faculty must submit abstracts using the template below for consideration to: edward.knab@erau.edu, Chair, and Bollinger-Rosado Faculty Symposium. Deadline is April 15, 2015 for abstracts. Please note this is a highly competitive symposium and slots are limited. All abstracts must contain sufficient details to adequately assess the quality of the proposed paper and presentation. And, the abstract must contain sufficient details regarding purpose, methods, analyses completed and results.

2) Abstracts will be peer-reviewed. Approximately six papers will be accepted for submission and presentation. The deadline for final papers and presentations (generally PowerPoint) will be August 31 and guidelines will be provided when speakers are notified of their acceptance. Only abstracts will be printed for the symposium, however, final papers will be taken into consideration for the Vance Mitchell Award for Excellence for the outstanding paper and presentation.

3) In cooperation with the ERAU IJAAA, journal editors have agreed to give special consideration to symposium papers for possible publication; however, presenters may also wish to consider publication in other journals as applicable.

4) Dr. Sims will support the symposium with the Vance Mitchell Award for Excellence for the outstanding paper and presentation, an award of $1,000. A peer-review group, appointed by the ERAU-Worldwide Faculty Senate Scholarship and Awards Committee, will assess papers and presentations and will determine the winner of the award.

Date and location: The symposium will be held at the Faculty Senate Meeting the week of October 26th, 2015.

TLES Symposium Abstract Proposal TEMPLATE
Presentation/Paper Title:
Description:
Purpose:
Design/methodology/approach:
Findings:
Research Implications:
Practical Implications:
Originality/value:
The College of Aeronautics is seeking qualified faculty to teach the following courses.

If you meet the FCCA criteria and are willing to teach in all modalities, or know of someone who is interested in teaching for us who meets the FCCA criteria, please direct them to wwaero@erau.edu. The FCCA criteria can be found under the Faculty Services tab within ERNIE. If you have already responded, we will contact you if we need further information.

<table>
<thead>
<tr>
<th>Undergraduate Courses</th>
<th>Graduate Courses</th>
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<tbody>
<tr>
<td>CESC 220 Digital Circuit Design</td>
<td>ASCI 691 Graduate Capstone Course</td>
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<td>ENGR 101 Introduction to Engineering</td>
<td>RSCH 665 Statistical Analysis</td>
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<tr>
<td>ENGR 115 Introduction to Computing for Engineers</td>
<td>RSCH 670 Research Methods</td>
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<tr>
<td>ENGR 120 Graphical Communications</td>
<td>SFTY 510 Industrial Hygiene &amp; Toxicology</td>
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<td>ESCI 201 Statics</td>
<td>SFTY 580 Environmental Protection for the Safety,</td>
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<td>ESCI 202 Solid Mechanics</td>
<td>Health and Environmental Manager</td>
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<td>ESCI 204 Dynamics</td>
<td>SFTY 691 Graduate Capstone Course</td>
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<td>ESCI 206 Fluid Mechanics</td>
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<td>ETEC 310 Engineering Materials</td>
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<td>ETEC 315 Circuit Analysis</td>
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<td>ETEC 410 Thermodynamics</td>
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<td>ETEC 415 Control Systems</td>
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<td>ETEC 420 Applications of Engineering Technology</td>
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<td>TRAN 361 Marine Transportation</td>
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<td>TRAN 371 Pipelines, Land Use, &amp; the Environment</td>
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<tr>
<td>TRAN 401 Transportation and the Environment</td>
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Coming Soon—
Aeronautical Science Faculty will be needed on ground in Korea & Japan. Contact wwaero@erau.edu
Faculty Tips

Canvas Solutions—Suggestions from CTLE

Any faculty member is welcome to completely re-take the updated Canvas version of FACD 300, or they can elect to audit the updated FACD 300. Those faculty who choose to re-take the course will be expected to complete each course activity, but will receive a new course completion certificate and an updated record in Campus Solutions. Those faculty who wish to simply audit FACD 300 can just review the course and complete as few or as many activities as they’d like at their own pace. Their record will reflect an “AU” or “Audit” grade in Campus Solutions. We offer both options each month as part of our regular FACD term beginning on the 15th of each month.

If anyone is interested in either re-taking FACD 300 or auditing the course, please email the CTLE department @ wwctlew@erau.edu with their selected course completion option.

We highly encourage all faculty to self-enroll in the new CTLE Canvas Course Site. Once faculty click on the link, they will be prompted to accept enrollment in the course by selecting the “Enroll in Course” button. There are lots of great resources on our CTLE Course Site, including our EV-Anar repository, a Web 2.0 Tools Glossary, and all of the FACD course resources. Faculty only need to self-enroll once; afterwards, this course will remain in the faculty member’s list of courses.

Third, if any faculty member is interested in taking FACD 525 – APA for Publishing and Academics, Below are the instructions for how to self-enroll in this Blackboard course. This course will remain available in Blackboard until we fully convert over to Canvas as of July 1, at which time it will become available in Canvas.

How to Self-Enroll in FACD 525: APA for Publishing and Academics

From the ERNIE main page, go to your Blackboard Summary and click on the Go to Blackboard Home

Select the My Courses tab at the top of your Blackboard Page.

On the top-left of the page, you will see an area titled Course Search. Type “APA” in the search box, and then click Go. You want to register in the course with the Course ID of “WW_FACD_525” and the Course Name “APA for Publishing and Academics.” Select the chevron to the right of “WW_FACD_525” and select Enroll.

On the next page, click Submit.

On the next page, you should receive notification that your enrollment was successful. Click “OK” and you will be automatically re-directed to the FACD 525 course page. You should only need to self-enroll in this course once. If you need to return to the course at a later date, it remains in your list of Blackboard courses you are enrolled in and can be accessed on your main Blackboard. After approximately 30 days of inactivity, you will be removed from the course and need to re-enroll. You will be removed from the course 30 days after successful course completion.
## Calendar Events

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Aircraft Accident Investigation MOOC began</td>
<td>March 23rd</td>
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<tr>
<td><strong>COA All Faculty EV meeting</strong></td>
<td>March 28th, 11am PT, 2 pm ET</td>
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<td><strong>UAS Short Course—San Diego</strong></td>
<td>April 2nd – 3rd</td>
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<td><strong>Senate Meeting</strong></td>
<td>April 28th—May 1st</td>
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<td><strong>Graduation - WW @ Daytona Beach</strong></td>
<td>May 2nd</td>
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<td><strong>AUVSI Unmanned Systems Conference</strong></td>
<td>May 4th - 7th</td>
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<td><strong>Atlanta, GA</strong></td>
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<td><strong>Worldwide Graduation - Hawaii</strong></td>
<td>May 5th</td>
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<td><strong>Worldwide Graduation - Europe</strong></td>
<td>May 16th</td>
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<tr>
<td><strong>Webinar: Unmanned Aerospace Systems - An Overview of Applications and Operations</strong></td>
<td>May 12th</td>
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<td><a href="http://worldwide.erau.edu/newsroom/free-webinars.html">http://worldwide.erau.edu/newsroom/free-webinars.html</a></td>
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<tr>
<td><strong>Worldwide Graduation - Europe</strong></td>
<td>May 16th</td>
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<tr>
<td><strong>Memorial Day Holiday</strong></td>
<td>May 25th</td>
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<tr>
<td><strong>Graduation San Diego, CA</strong></td>
<td>May 31st</td>
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<tr>
<td><strong>Worldwide Graduation Pensacola, FL</strong></td>
<td>June 6th</td>
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**International Journal of Aviation, Aeronautics, and Aerospace**

[http://commons.erau.edu/ijaaa/](http://commons.erau.edu/ijaaa/)
Send us your photos, stories, events, so we can feature your successes in the next COA newsletter. We welcome any comments, corrections or suggestions.

Please send them to stenbers@erau.edu

Canvas Training—Faculty sign up
http://www.trumba.com/calendars/canvas-training-for-worldwide-faculty