

Embry-Riddle Aeronautical University AIAA Student Branch 2014/2015 Summary



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The Embry-Riddle AIAA Student Branch has been hard at work this academic year. Our technical projects are in full swing on the aeronautics side of the house, and a start-up astronautics project is now underway. National Engineers Week (E-week) 2015 has already come and gone, and we hosted Dr. Mark Whorton, CTO of Teledyne-Brown Engineering, Mr. Neil Young of Lockheed-Martin Skunk Works, Mr. Todd Barber of NASA's JPL, and the leaders of the Dassault Design Institute as guest speakers. Other points of focus from our branch have been expanding AIAA student membership on campus, sponsoring an Aerospace Engineering Tutoring Center, and engaging in technically oriented volunteer activities such as restoring aircraft at the Deland Naval Air Station Museum.



In 2014-2015, there were two aeronautics student projects that are being sanctioned by the



ERAU Student Branch. This year was used as a year to pass the torch from one generation of technical project leaders to another. Teams were formed to build aircraft under the regulation of the SAE Aero Design Competition (HeavyLift) and the AIAA/Cessna/Raytheon Design/Build/Fly Competition. The two teams brought about many learning outcomes, inclusive of aerodynamics, structural design, and the uses of software to aid in these activities. Our Branch was generously partnered by CD-Adaptco through the support of access and training to copies of STAR CCM+, a cutting-edge CFD program.



Beyond the technical projects, our branch has been active across campus hosting a series of guest speakers and social events along the way. In the fall semester, Embry-Riddle brought the Wings and Waves Airshow to the Daytona Beach area featuring the United States Air Force's F-16 Thunderbirds. During this time, our branch was able to host a Student-Faculty BBQ for the ERAU community on the beach, which was a great success and brought attention to the organization. As one of our first big events of the year, we were excited to get off the ground in a fashion such as this.



While most of the country saw intense wintry conditions, the ERAU AIAA Student



Branch convened with thousands of other aerospace professionals at the SciTech 2015 Conference held in Kissimmee, Florida during the first week of January. Multiple graduate students in our branch were privileged with the honor of presenting their papers at the conference. The ERAU Alumni Association hosted a dinner among

the current branch members, and those that have since graduated and moved into industry after their time at Embry-Riddle. Additionally, our competition teams were given an opportunity to present their work in the exhibit portion of the conference. It was an exhilarating experience once again to see our members have such a deep exposure to the aerospace industry as a whole.



With the spring came a wave of outreach to our campus and our community. It was a privilege to host a variety of very distinguished aerospace professionals as guests for the enrichment of the Embry-Riddle campus. The first in our series was Dr. Mark Whorton, Chief Technology Officer of Teledyne-Brown Engineering. Dr. Whorton was our featured guest during National Engineers Week. On campus, we sponsored an Engineering Triathlon in which students reverse engineered an RC aircraft into CAD and later assembled the airplane.



The next event the Branch brought to the table was hosting Mr. Neil Hall, flight stability control engineer at Lockheed-Martin Skunk Works. As evidenced by the photo to the left, there was a huge



reaction from the ERAU community resulting in standing room only. Mr. Hall spoke of a project involving structural loading and aerodynamic effects of aquatic takeoffs and landings, but emphasized the industry's need for aerospace engineers that understand the engineering fundamentals in full.

Carrying on the tradition of the ERAU AIAA Annual Dinner Meeting, Mr. Todd Barber was the featured guest speaker at the March 25th event. Mr. Barber has worked as the Senior Propulsion Engineer for the Cassini Mission to Saturn. Thirty five individuals attended the event hosted in Embry-Riddle's College of Aviation. Todd's jokes and technical knowledge intertwined for a memorable experience shared by all who attended.



Finally, continuing the momentum from the Dinner Meeting to the end of the year, the ERAU student branch hosted the Dassault Design Institute Lecture on the 16th of April. This was yet another event open to the public where featured guests Lionel de la Sayette, Donald Pointer, and Michel Lavanant spoke on the skills and competencies for a successful career in the aerospace industry. This event truly summarized the year for the ERAU AIAA Student Branch: Preparing for Success in Aerospace.

On May 1st, 2015, a new Executive Board will take authority of the organization. The new officers are: Taylor Fazzini, Chairman; Nathan Crane, Vice Chairman; Andrew Miller, Treasurer; Patrick Thompson, Secretary. This new board will be tasked with the duty of carrying the torch onward for the ERAU AIAA Student Branch.