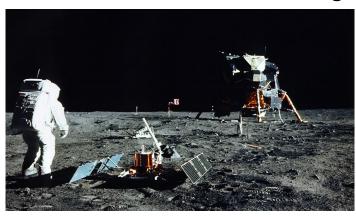


Aerospace Frontiers

August 2019



Regional Director's Corner

As I write this, it is the 50th anniversary of the Apollo 11 Moon landing, and I'm still struck by the scope of the project that successfully landed Americans on the Moon.

In May of 1961, President Kennedy stood before Congress stating that the U.S. "should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the Earth." At that time, the only U.S. astronaut to have flown was Alan Shepard, and that was a suborbital flight.

Later, in 1962 at Rice University, while selling the idea to the American people, President Kennedy uttered the immortal words "We choose to go to the Moon in this decade and do the other things, not because they are easy, but because they are hard." The Mercury program was still ongoing and the Gemini program, where the skills and capabilities for travel to and from the Moon would be demonstrated, was still over two years from its first crewed flight. The most monumental problem in history had just been given to NASA (then only 4 years old).

To meet President Kennedy's goal, NASA set to organizing itself and assembling contractors and experts (many from the southeast, many you or I have had the privilege to meet, and many that were AIAA members) into the Apollo program. Every NASA facility in the southeast played a crucial role in Apollo/Saturn V development, testing, and launch. And it was all completed while finishing the Mercury and Gemini programs and concurrently designing and successfully flying the Saturn IB rocket to take Apollo capsules into Earth orbit.

Amongst the many successes, there was also great tragedy to be overcome when, on January 27, 1967, a fire in the Apollo 1 capsule claimed the lives of Astronauts Virgil I. "Gus" Grissom, Ed White, and Roger Chaffee. That event serves as an eternal reminder that our business can be unforgiving and extremely hazardous. However, the accident didn't occur in vain as the space program and the nation recovered and implemented changes that improved the design, safety, and ultimately the odds of success of subsequent Apollo missions.

As our nation celebrates the 50th anniversary of Apollo 11 and looks to return to the Moon and potentially travel to Mars, I'm reminded of the end of the film Apollo 13, the moon landing that was not to be, when Tom Hanks as Jim Lovell said "I look up at the Moon and wonder, when will we be going back, and who will that be?"

I hope we have answers to both soon.

Kurt Polzin

Director - AIAA Region II

Fall Banquet to Feature Robert Zubrin "Destination Mars"

Our section teaming up with the AIAA Central Florida Section and the AIAA UCF Student Branch to welcome Dr. Robert Zubrin for a Fall 2019 Banquet on Monday, September 30, 6:00-8:00 PM at the University of Central Florida in the Student Union Cape Florida Ballroom. Cost is only \$10 for current AIAA Members, \$15 for guests, including dinner!

Guest Speaker Dr. Robert Zubrin will discuss "Destination Mars: Human Mars Exploration & Colonization." Dr. Zubrin, formerly a Staff Engineer at Lockheed Martin Astronautics is now president of his own company, Pioneer Astronautics. He holds Masters degrees in Aeronautics and Astronautics and a doctorate in Nuclear Engineering from the University of Washington. He is the inventor of several unique concepts for space propulsion and exploration, the author of over 200 published technical and non-technical papers in the field, as well the non-fiction books "The Case for Space" and "The Case for Mars" He founded the Mars Society, an international organization dedicated to furthering the exploration and settlement of Mars by both public and private means.

Learn more at <u>Engage.AIAA.org/CentralFlorida</u>
Register now at https://squareup.com/store/aiaa-cfl



[∞] mentor2mentor

Our section is launching a new program: mentor2mentor! We are currently looking for participants interested in being mentors and mentees. We will be offering both on-line and in person programs as well as special events and socials. We are seeking to connect members from all career levels and fields. Being a part of this mentoring program is an excellent way to expand your contact list, grow as a professional, get career/academic advice, and have some fun! If you are interested, please complete the link below:

mentor2mentor Interest Survey

™ National AIAA Leadership Visit

Join the section as we host AIAA Executive Director Dan Dumbacher and COO Angelo Iasiello on Tuesday, September 3rd 5:30 – 7:00 PM at Rising Tide tap & table, 523 Glen Cheek Dr, Port Canaveral. All members are invited to this special opportunity to meet the leadership of AIAA and have your voice heard. Plus, free appetizers will be provided! Please RSVP to aiaacanaveral@gmail.com

Social Media and we want to hear from you! Find us @capeaiaa

Take a minute to follow the AIAA Cape Canaveral Section on Facebook, Instagram, and Twitter at username @capeaiaa, or find us on Engage at engage.aiaa.org/capecanaveral/home

We want to hear from our members! Tell us what you think. Do you have a question you need answered? Do you need a guest speaker and/or volunteers for your event? Use these tools to ask your fellow section members for their help!

⇔ Membership Task Force

Our council recently assembled a membership task force to better understand the section's role in the community and to enhance the events and initiatives we offer to our membership. From undergraduate students to retired professionals, the task force's goal is to ensure that everyone has opportunities to be engaged in meaningful activities through the section. To share your ideas with the membership task force contact rachel.mocini.1@us.af.mil.

Council Member Spotlight



"My name is **Ashley** Scharfenberg and I am the Young Professional Chair the AIAA for Cape Canaveral Section as well as the Assistant Deputy Director of Education for Region II. I graduated with degree in Aerospace Engineering from University of Alabama in Huntsville and am currently

Master's degrees in aerospace pursuing engineering and Engineering Management at the University of Central Florida. I work for Jacobs Space Operations Group on Kennedy Space Center as a Mechanical Engineer on the SLS Mobile Launch Tower. My hope for this year is to connect young professionals across various positions in all of the companies within the section. I hope to have both fun activities and get-togethers as well as valuable events to support and promote young professionals in their current careers and future endeavors. I'm very excited to be a part of the council this year and look forward to what we will all accomplish together."

Florida Tech and Embry-Riddle Student Branches Hosted AIAA Region 2 Student Conference

Written by Dave Fleming, Cape Canaveral Section Secretary

The 70th Annual American Institute of Aeronautics and Astronautics (AIAA) Region II Student Conference, was held in Cocoa Beach, FL on April 4-5, 2019. This year's conference was co-hosted by the Student Branches from the Cape Canaveral Section, the Florida Tech Student Branch of AIAA, and the Embry-Riddle Student Branch. Student Branch presidents Archit Srivastava (Florida Tech) and Curtis Barton (Embry-Riddle) spearheaded much of the organization of the conference.

The conference attracted 224 students from throughout the Southeast and 54 professional and faculty representatives. The event include a keynote presentation from Lt. Col. Waylon S. Mitchell, Commander of the 5th Space Launch Squadron at Cape Canaveral Air Force Station. The awards banquet featured Florida Tech alumni and NASA Astronaut Sunita L. Williams, who gave an inspiring take about her experiences in space and future plans to fly aboard Boeing's Starliner spacecraft.

Section students won several awards for their presentations. Sean Dungan and Kevin Fernandez of Florida Tech won First Prize in the 'Regional Design Team' Category for presenting their project "Florida Tech -Design/Build/Fly." Reed Antonich, Jarrett Elrod, Ethan Hunt, David Lomonte, William McCormick. Amanda Noori. Nyffenegger, and Siliviu Solomon of Florida Tech won second prize in the highlycompetitive 'Technical Paper -Team' category for presenting their paper "High Altitude/Mach Rocket." The Florida Tech AIAA Student

Branch's Community Outreach Efforts was recognized as First Place in the "Community Outreach" category, and the Embry-Riddle Student Branch earned second prize in Community Outreach.



Florida Tech Student Branch Members with Astronaut Sunita Williams at AIAA Region II Student Conference, April 2019

2019 - 2020 Cape Canaveral Section Council Members

Chair Elizabeth Balga
Vice Chair Rachel Mocini
Secretary David Fleming
Treasurer Matthew Zuk
Programs Dennis Dali

Education Naveen Sri Uddanti

Honors & Awards Razvan Rusovici

Communications Jacob Shiver

STEM K-12 Melissa Sleeper

Public Policy Holly Petrucci

Career and Workforce Development

Dhuree Seth

Young Professional Ashley Scharfenberg

⋄ Vacant Positions

The Executive Council currently has two vacancies: Technical Officer and Membership Chair. If you are interested in joining the leadership team, please contact Section Chair Elizabeth Balga at aiaacanaveral@gmail.com.

Announcements

Technical Excellence Awards

AIAA offers awards in numerous categories including the Lawrence Sperry Award for notable contributions by a young person, age 35 or under. to the advancement of aeronautics or astronautics. (Nomination Deadline October 1), the Space Operations & Support Award for outstanding efforts in overcoming space operations problems and assuring success, and recognizes those teams individuals whose exceptional or contributions were critical to an anomaly recovery, crew rescue, or space failure. (Nomination Deadline Feb. 1, 2020). The full list of Technical Excellence Awards can be found https://www.aiaa.org/home/getinvolved/honors-awards/awards/technicalexcellence-awards/2.

Please consider nominating one of your colleagues for this recognition. Section officers can assist with preparing the nomination packet (which is easier than you think!).

AIAA Career Center

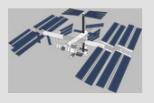
AIAA is pleased to provide members with a <u>Career Center</u>, with extensive lists of resumes and available



positions. A powerful and user-friendly search tool allows you to find the ideal job or candidate

Spot the Station

See the International Space Station! As the third brightest object



in the sky, the space station is easy to see if you know when to look up. NASA's Spot the Station service gives you a list of upcoming sighting opportunities for thousands of locations worldwide and will let you sign up to receive notices of opportunities in your email inbox or cell phone. The space station looks like a fast-moving plane in the sky, but it is dozens of times higher than any plane and traveling thousands of miles an hour faster. It is bright enough that it can even be seen from

the middle of a city! To find station in your area check out the **Spot the Station** site.

Attend an AIAA Cape Canaveral Council Meeting

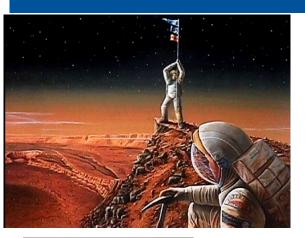
Many things take place behind the scenes to keep your AIAA Section running smoothly. We would like to encourage you, as members, to attend one of the Section Council Meetings. These meetings are the forum for discussing new ideas for events, speakers and outreach, among other things. One of the best things you can do is to tell us what interests you. We want to do things that you find valuable.

Please feel free to contact any of your Section Officers for further information.



American Institute of Aeronautics and Astronautics Central Florida Section, Cape Canaveral Section, and UCF Chapter

2019 Fall Banquet



Monday September 30th 6:00-8:00 pm

Student Union Cape Florida Ballroom University of Central Florida





AIAA CELEBRATES THE

ANNIVERSARY OF APOLLO 11

Guest Speaker - Dr. Robert Zubrin

"Destination Mars: Human Mars Exploration & Colonization"

President of Pioneer Astronautics Dr. Zubrin is the inventor of several unique concepts for space propulsion and exploration, the author of over 200 published technical and non-technical papers in the field and founded the Mars Society; an international organization dedicated to furthering the exploration and settlement of Mars by both public and private means.

6:00-6:30 - Networking

6:30-7:00 - Dinner

7:00-8:00 - Dinner/Speaker

Cost to Attend:

Students (Members) - \$5

Students (Non-Members) - \$10

Professionals (Members) - \$10

Guests (Non-Members) - \$15

Register at https://squareup.com/store/aiaa-cfl

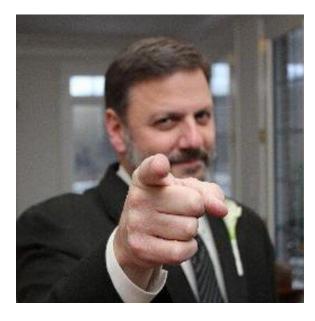
facebook.com/aiaacfl facebook.com/capeaiaa facebook.com/aiaaucf engage.AIAA.Org aiaaucf.com





National AIAA Leadership Visit





Join us in welcoming Executive Director, Dan Dumbacher, and Chief Operating Officer, Angelo Iasiello to the Florida Space Coast!

Tuesday, September 3rd
5:30 – 7:00 PM **Rising Tide Tap and Table**523 Glen Cheek Dr, Port Canaveral

Appetizers provided!

RSVP to aiaacanaveral@gmail.com