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Chair Chat

St. Louis Section Chair – Charlie Svoboda

We are facing a few challenges and opportunities this year (June 2022 – May 2023).



- 1) Recruiting and integrating new contributors / section committee members to help move the section forward
- 2) Reinvigorating the Dinner Meetings and Technical Specialist Meetings
- 3) Starting a new swim lane of regular Field Trips

#1 – Is the most important. We are a volunteer driven organization. If volunteers add labor hours to create value inside the section, the whole section gets better. We have gaps that we need people to step into and as people fill those gaps the section gets better. People are our constraint or bottleneck. Because of the Boeing volunteer match program (they contribute \$10/hour of donated time), money is not a constraint for us. We have plenty of budget to achieve our goals. We are starting to gain traction in our recruiting efforts and are starting to integrate new folks into our organization.

#2 – We need to have a strong in-person meeting component to be a healthy section. The Dinner and Tech Spec meetings are the primary place where we can gather together and connect. Obviously engineering types are not always the best at connecting, but we don't need to function at a really high level to be successful. We just need to reach a "critical mass" to be successful, maybe 30-50 folks attending each of the monthly events. It is also the primary place for us to connect with new folks and potentially meet new recruits who will help with the section. Two things we are doing here to help: 1) Having a committee member take a little time at the beginning of each meeting to tell how they got exposed to AIAA, why they joined AIAA, what they like about AIAA, and why they

are a member today; and 2) Asking each of the section committee members to try to attend one of the bigger meetings (Dinner or Tech Spec) a month.

#3 – Starting to organize and conduct field trips that the section members and student branch members can participate in. Earlier this year Brad Sexton organized a visit to Zenith Aircraft Company (a kit plane manufacturer) in Mexico, Missouri that was a great event. We had some folks from the professional section and each of the four student sections. The guy who led the tour leads the manufacturing at Zenith and also has his own aerospace machine shop. There are other aerospace suppliers in the area that we would like to visit. If anyone is interested in helping with this, please let me know: 314-216-1155.

It looks like we will have a great year. Please join us. Have a great holiday season.

Thank you.

Charlie Svoboda

Vice Chair Chat

St. Louis Section Vice Chair – Steve Clark

The AIAA STL section is a people driven organization – the people are what allow us to provide programming that interests and serves the St. Louis aerospace community. The AIAA St. Louis section leadership is currently in the middle of an effort to build more depth into the section committees – bringing in fresh perspectives and allowing for more/better programming which serves you, the AIAA membership.



Some particular areas of help needed are:

- **Programs Committee** – This committee is responsible for overseeing the planning, organization and execution of monthly section meetings of the membership for the purpose of networking, fellowship and general edification. Involvement in this committee is a great way to build connections with the speakers we bring in to our dinner meetings each month.
- **College Outreach Committee** – We are seeking university points of contact (POC) for Mizzou, SLU and Wash U to help foster connections between the professional and student branches.

Help is always welcome from interested participants in our other committees as well. Those interested can feel free to reach out to myself, Steve Clark (stephen.f.clark3@boeing.com), or directly to any of our section committee chairs listed toward the end of the newsletter!

Happy Holidays,

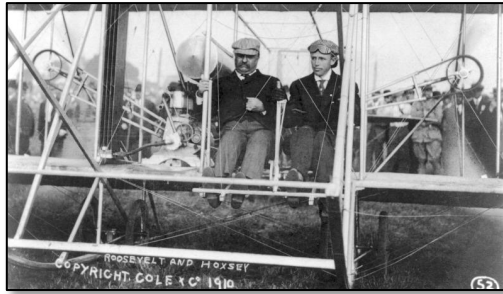
Steve Clark

History in Aviation: November & December

Historian - Colin Thiele

November 1910

Teddy Roosevelt is the first US President to fly. The flight takes place at Kinloch Field in St. Louis, MO, with pilot Archibald Hoxsey at the wheel.



November 1960

Then Illinois governor Richard B. Ogilvie along with St. Louis Mayor Alfonso J. Cervantes push a concept of a regional airport on the Illinois side of the Mississippi River to serve both the City of St. Louis and Illinois residents and alleviate Lambert Airport Crowding – This later becomes Mid-America Airport co-located with Scott Air Force Base.

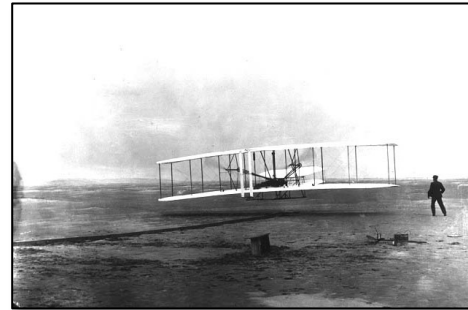
November 1995

A McDonnell Douglas MD-11 lands without the need for a pilot to manipulate the flight controls by using only engine power for control. This becomes the first airliner to complete an automated landing using only engine control. The Propulsion Controlled Aircraft design was initially sketched on a TWA napkin by NASA Dryden Engineer, Bill Burcham, on a flight to St. Louis in the early 1990s.



December 1903

Orville and Wilbur Wright became the first to demonstrate that sustained flight of a heavier-than-air, aircraft under control of a pilot is possible. Orville piloted the first flight, for a time of 12 seconds and covered a distance of 120 feet on December 17th.



Christmas Eve 1968

The crew of Apollo 8, Frank Borman, Jim Lovell and Bill Anders enter into orbit around the Moon, becoming the first humans to do so. This was televised on what is famously referred to as The Christmas Eve Broadcast to Earth.



December 2001

TWA flight 220, on December 1st, is the ceremonial last flight of TWA. The flight was from Kansas City to St. Louis, with CEO Captain William Compton at the controls of the MD-80.

STEM Corner

STEM Chair- Jackie Blumer

AIAA and Wings of Hope Connect with Students

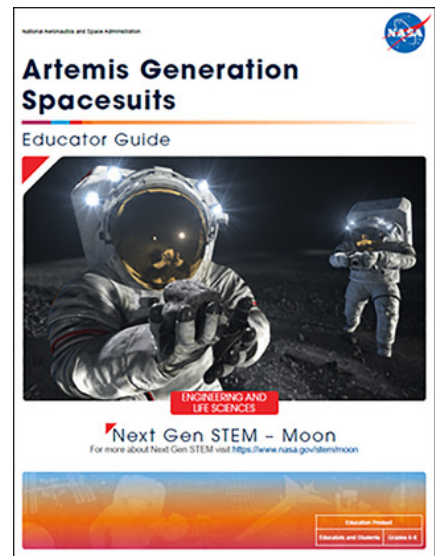


AIAA St. Louis was able to connect with around 100 students in November with Wings of Hope St. Louis. Three section members were there to introduce AIAA to potential future engineers and explorers. We worked on building a simple sling-shot rocket and talked with students about the possibilities available to them through AIAA.

STEM Corner Activity: Artemis Generation Spacesuits

Overview: With these activities, students will:

- Research essential components of spacesuits and then design a prototype using off-the-shelf products, demonstrating the structures and functions of their new design.
- Explore spacesuits of the past and examine their differences. Students will redesign one of the Artemis Generation spacesuits to better suit a new extreme environment such as Mars, Mercury, or Europa, one of Jupiter's moons.
- Design and optionally develop a user interface that makes information available to an astronaut via a heads-up display.
- Design a modular tool with interchangeable tool heads to retrieve or process different types of regolith, loose soil found on Mars. Students will also develop an instruction manual on how to use their new tool.



NASA Link:

- https://www.nasa.gov/sites/default/files/atoms/files/artemis_generation_spacesuits_508.pdf

TRAILBLAZING STEM EDUCATOR AWARD

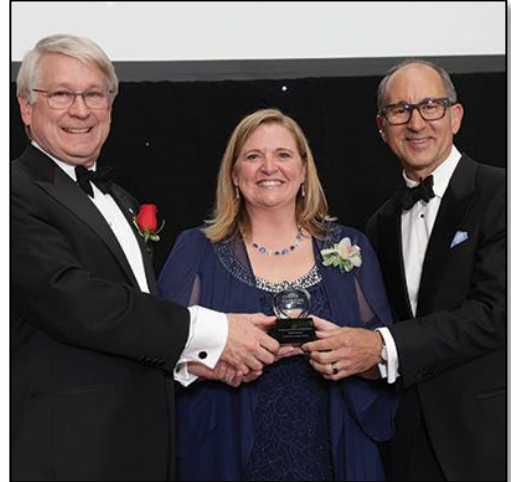
The [American Institute of Aeronautics and Astronautics \(AIAA\)](#) and [Challenger Center](#) have partnered to recognize three educators who are trailblazers in science, technology, engineering, and mathematics within the classroom and beyond with the [Trailblazing STEM Educator Award](#).

Winners Will Receive:

- A \$5,000 award to the educator
- A \$5,000 award to the educator's school or organization
- A trip to Washington, DC, to be honored and awarded at the AIAA Aerospace Spotlight Awards Gala
- Free access to Challenger Center's STEM education programs
- Opportunity to attend a future space launch experience

Nomination Requirements:

- The nominee must be a K-12 educator who brings real-world STEM experiences to students
- Past recipients are ineligible for future consideration
- All recipients must be or become an AIAA Educator Associate member
- Preference will be given to teachers who demonstrate active use of AIAA and Challenger Center resources in their classroom
- Self-nominations are not permitted
- The nominator is not required to be a current AIAA member
- The nominator may not serve as a reference
- References are not required to be current AIAA members
- One of two letters of endorsement must be provided by the principal of the nominee's school or the educator's supervisor
- Nominations must be submitted using the online database
- View full eligibility requirements, application criteria, and restrictions on AIAA's [website](#). Applications will be accepted until December 15, 2022.



Jackie Blumer, 2022 Trailblazing STEM Educator

New Member Spotlight – Hunter Pritzlaff

Hello everyone! My name is Hunter Pritzlaff from New Berlin, Wisconsin which is a suburb of Milwaukee. I've always been interested in aviation and have no shame in admitting I was a little bit of an aviation history nerd when I was younger. Pretty soon after I started to go to high school, a group of my friends and myself decided to go to EAA AirVenture in Oshkosh and those experiences solidified my desire to get involved in this world of aviation and engineering. Therefore, I went to Parks College at Saint Louis University to pursue an Aerospace Engineering Undergraduate degree where I participated in a few different extracurriculars on top of my studies, such as SLU's Spaceport America rocket team. After college, I ended up having the opportunity to stay right here in the St. Louis region to pursue a job at Boeing Defense & Space (BDS) in a structural design engineering position! When not at work, I like to do things outdoors such as fish and hunt and I used to shoot trap competitively (it's been a few years at this point, though!).



I also like to build and upgrade PCs and have built myself and my friends a few PCs in the past. Overall, I feel like now is a great time to be a young engineer in the Aerospace Industry. There are so many new and exciting technologies being developed every day that directly influence the industry and allow us as engineers to make more capable aircraft, spacecraft, and everything in-between!

Education & College Outreach

Section Education & College Outreach Chair – Mark Kammeyer

Seeking help with Student Branches: Students are the future of our profession and our AIAA Student Branches are where aerospace students come together. We have four student branches in our St. Louis Section, and they all need our support and encouragement. In this spirit, the Education and College Outreach committee is seeking enthusiastic members to focus on one of our branches. Recently we welcomed Mason Bringus and Zachary Marshall, who will focus on the branch at Missouri S&T, but they can't do it alone. Now we need help with the other three: Mizzou, SLU, and Wash U. Are you an alumni of one of these fine institutions? Are you inspired by the infectious enthusiasm of youth? Would you like to bring free pizza to thankful, starving students and help the profession at the same time? If so, then contact Mark Kammeyer mark.e.kammeyer@boeing.com, or any other council member, and help our profession grow.

AIAA St. Louis Section Twitter Account

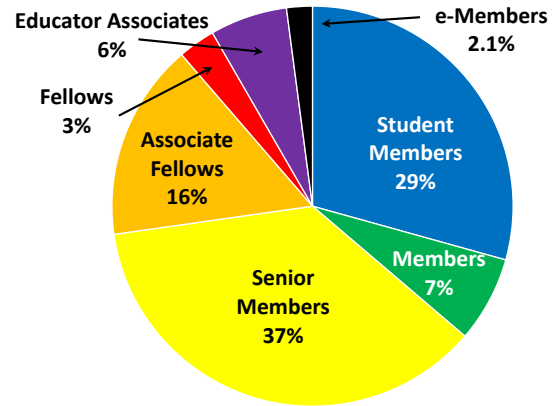
The AIAA St. Louis Section now has a Twitter account! Please follow us at @StLAIAA

Membership Report

Alex Friedman – Membership Chair

The Section membership for November 2022 is at 460 members. The distribution breaks down as shown in the table and chart below.

Type	Oct	Nov	Change
Professional	299	306	+7
e-Members	1	9	+8
Members	32	30	-2
Senior Members	158	158	0
Associate Fellows	70	69	-1
Young Professionals	25	27	+2
Fellows	13	13	0
Student Members	108	127	+19
Educator Associate	30	27	-3
Total	437	460	+23



If you want to help someone get connected with AIAA events in St Louis, please pass along a couple of social media groups related to our St. Louis Section. We advertise our events on Facebook through the group “[I Fly St Louis](#)” and through the Boeing inSite group “[AIAA – St Louis Section](#)”. Both of these groups are free to join and do not require AIAA membership. Please feel free to forward any membership questions to [Alex Friedman](#).

Making a Change?

Are you graduating and moving? Planning to retire soon? Making a career move? If you are leaving the St. Louis Section area, please update your AIAA profile, so you will continue to receive accurate AIAA correspondence. Go to "My AIAA" (<http://www.aiaa.org/myAIAA>) log in, go to "My Account" and select "Edit Contact Info."

Honors & Awards

Honors & Awards Chair – Jess Smith

Honors & Awards Committee – Bria Fairfax and Hunter Pritzlaff

It's a community effort to shape the future of aerospace. Recognize those who are making high flying achievements that make us want to stand up and cheer. AIAA Honors and Awards with upcoming deadlines are noted below.

Technical Awards:

[Dr. John C. Ruth Digital Avionics Award](#)

Recognize outstanding achievement in technical management and/or implementation of digital avionics in space or aeronautical systems, including system analysis, design, development or application.

Nomination Period Closes: **1 February 2023**

Educator Awards:

[Trailblazing STEM Educator Award](#)

Nominate an educator who goes above and beyond to inspire the next generation of explorers and innovators in science, technology, engineering, and mathematics.

Nomination Period Closes: **15 December 2022 at 1159 hrs. ET**

[J. Leland Atwood Award](#)

Nominate an aerospace engineering educator in recognition of outstanding contributions to the profession.

Nomination Period Closes: **15 January 2023 COB**

Student Awards:

[Abe Zarem Graduate Award For Distinguished Achievement-Aeronautics](#)

Any masters student who would like to be considered for the award should submit their paper, PhD students are not eligible for this award.

Established by AIAA and Dr. Abe Zarem as a means for students pursuing advanced degrees (master's level candidates) in aeronautics and astronautics to showcase their talent and work. It is hoped that these awards will not only identify talented students, but also motivate/encourage more students to seek advanced degrees in these areas and thus start to fill a void that has worried educators for many years.

Nomination Period Closes: **22 April 2023**

Technical Program / Dinner Meetings – A Tale of Two Meetings

Programs Chair – Bob Dowgwillo

Annual New Members Night & Aviation and Space Trivia Contest:

Our annual New Members Dinner Meeting was held on Tuesday, October 25 in the Boeing building 100 café. Guests were treated to a variety of Domino's Pizza and soft drinks. Tours of the nearby Prologue Room were provided, always a treat for non-Boeing guests. As usual, “riding shotgun” for this event was Alex Friedman, our Membership Committee Chair.

The event was structured around the aviation and space trivia contest assembled by Bob Dowgwillo. This year's contest consisted of four rounds of 10 questions each. The categories were True or False, Movies & TV, Space



Question 9 from the Name That Debris Category.

Stuff, and the always challenging Name That Debris. New this year was self-scoring, which seemed to add to the fun.

During the breaks between categories, invited guests shared their experiences as members of AIAA. These included Charlie Svoboda (Section Chair), Alex Friedman, Jessica Smith (Young Professions Committee Co-Chair) and Laurette Lahey (Boeing executive and long time Section supporter).

Attendance Prize winners were Ashley Wheeler, June Flegle, and Cynthia Jarvis, all non-members! The prizes were gift certificates to the Saint Louis Science Center.

Laurette Lahey won the prize for best aerospace attire, arriving in her olive green flight suit. Her prize was an official cap from the Apollo 11 Command Module exhibit held at the Science Center in 2019.

Cloe Bess, another non-member, won our raffle, a LEGO International Space Station kit.

Our five trivia teams were Eagle 5, Newbies, Skunk Works, JACK, and Phantom Works. Skunk Works won with 31 points out of a possible 40. Congratulations!

Lee Bequette, a student at Southern Illinois University - Edwardsville was recognized for traveling the farthest.

What Your Professors Never Told You About Aerospace:

Our first joint Section/Student Branch dinner meeting in many years was held on Thursday, November 10. Our student members at Saint Louis University hosted our event in the Busch Student Center (BSC). This was our first time at the BSC. The facility proved spacious and comfortable, with state-of-the-art audio-visual capability that was put to good use. The full buffet was especially appreciated by the students.

Student Branch President Julia Maxwell opening the evening with a greeting and recognition of the student members. Bob Dowgwillo, Programs Chair, followed with recognition of the Section members in attendance. Section Chair Charlie Svoboda then shared some of his work experiences related to the evening's theme.

Our speakers, John Riley and Dan Jaspering, both alumni of then-Parks College, began their presentation with a walk through a collection of “Aircraft Oddities”. The “Oddities” were World War II aircraft that exhibited unique or unusual, for the day, design features. Thanks to the rapid state of technical development during the war years, many of these oddities soon became commonplace. Seldom are students introduced to such a “history of technology”, especially in such a comfortable setting.

John and Dan then focused on their unique experience with the mighty MA-31, a product of the end of the Cold War. The MA-31 was an adaptation by McDonnell



The SLU Student Branch Executive Board Members are, from left to right, Michael Blunt – Treasurer, Wesley Hawkins - Graduate Liaison, Julia Maxwell – President, Juanita Latorre - Social Media Coordinator Amanda Kohne - Events Coordinator. Not Pictured is Jacob Stukas - Vice President.



Our speaker tag-team in action: John Reilly and Dan Jaspering.

Douglas of a Soviet supersonic anti-ship cruise missile to serve as a high-speed target for the US Navy. They highlighted the many lessons learned working with an organization that operated in ways polar opposite to the West. Thanks to the excellent AV support at the BSC, the audience was treated to vintage video tapes(!) and DVDs highlighting program events from decades ago. Separation and launch of the missile from an F/A-18 was particularly interesting. Questions were entertained throughout the presentation.

The presentation ended with our now-traditional drawing for our three attendance prizes...gift certificates to the Saint Louis Science Center. Julia closed the evening with a thank you and safe travels.

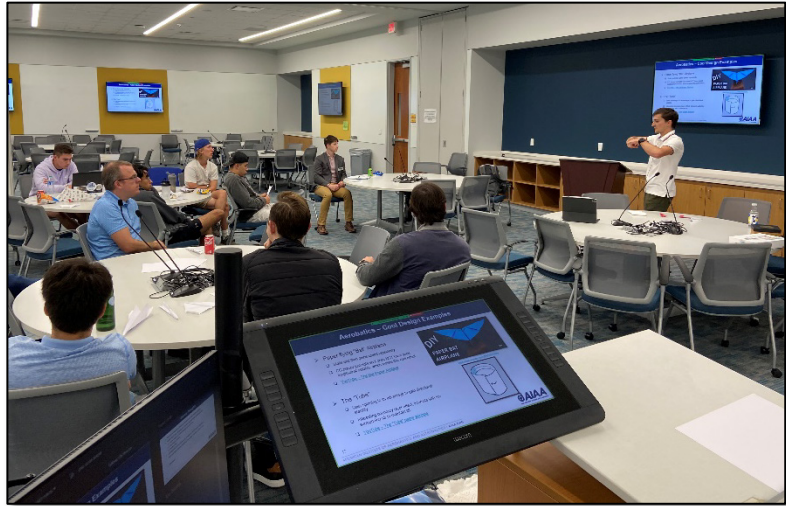
A Reminder... For most of our Dinner Meetings, the Section contracts with a venue for the room and the catering. In order for the venue to plan the dinner service, we must provide them with the number of attendees several days in advance. The Section is then financially obligated to pay for this number of dinners, regardless. Consequently, registrants who do not show up place an unnecessary financial burden on the Section. This consumes funds that could be used for other Section activities.

So, in fairness to all concerned, please register for a Dinner Meeting only if you truly plan to attend; then, once you do register, please attend.

Technical Specialist Meetings

Technical Specialist Chair – John Schaefer

It has been an eventful fall for the AIAA STL technical program. First, on September 27, the section was visited by Dillon Ruble, the US National Paper Airplane Champion. Dillon described the fundamental concepts required for designing paper airplanes with various mission objectives, and he talked in detail about his experiences representing the United States at the Red Bull Paper Wings international competition in Austria. Attendees were treated to a paper airplane folding demonstration, and were able to throw our creations across the lecture hall at St. Louis University, where the meeting was held! There were 29 in-person and online attendees.



Next on October 18, the section was joined by Dr. Brian Rauch, a research associate professor at Washington University in St. Louis. Dr. Rauch discussed his work on the Trans-Iron Galactic Element Recorder (TIGER) instrument and its journey from stratospheric balloon tests above Antarctica to a planned mission aboard the International Space Station. As the name suggest, TIGER is designed to detect fast-moving cosmic rays from outer space, and is specifically focused on atomic nuclei. Dr. Rauch also described what it is like to live in Antarctica for an extended period of time as part of a scientific research team, and shared many fun stories about his experiences there. There were 12 total attendees.

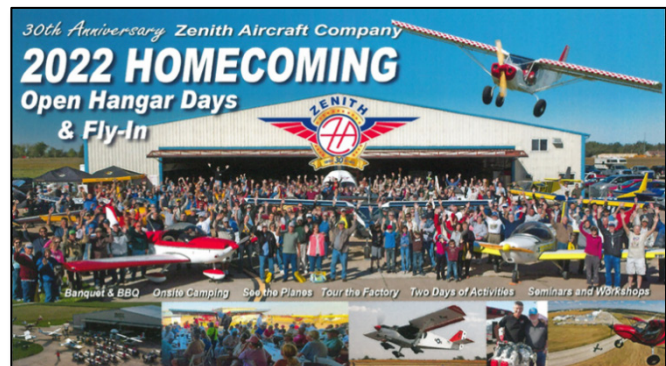
Coming up on December 6, the section will be joined by Drs. Rene Wosidlo and Doug Nicholson for an overview of the DARPA CRANE program, Active Flow Control (AFC) technology, and Shape Memory Alloys (SMA). This presentation will be the first of a two-part event; on December 15, there will be a tour of the Boeing AFC/SMA Laboratory. Stay tuned for further details regarding time, location, and registration for these events.

AIAA St. Louis Section Field Trip – September 2022

Brad Sexton

Sebastien Heintz, the owner and president of Zenith Aircraft Company, a leading kit aircraft manufacturer based in Mexico, Missouri (90 miles West of St. Louis) invited the members of the St. Louis section to attend their 30th anniversary homecoming event.

The AIAA St. Louis Section responded by sponsoring a field trip to Zenith on September 17, 2022 to Mexico, MO. Over 20 members (professional & student) from the St Louis section



attended the event. A van was rented and carpooling recommended. Once there, a specially arranged AIAA tour of the aircraft factory was conducted and we were welcomed to participate in all the Homecoming activities.



St Louis Section AIAA members on the tarmac next to Zenith Aircraft.



AIAA members intently listen to the Zenith plant manager as he discusses details of making the parts for the various kit aircraft.



AIAA members standing on the taxiway watching Kit owners demonstrate the STOL capabilities of their aircraft

Aerospace Link(s) of the Month – Point / Counter Point

Bob Dowgwillo – Programs Chair

Chilling warning as Iran ‘develops terrifying hypersonic missile that can punch through ALL air defences’, regime claims: <https://www.thesun.co.uk/news/20382586/iran-hypersonic-missile-chilling-warning/>

Pentagon Skeptical Of Iranian Hypersonic Claims: <https://aviationweek.com/defense-space/missile-defense-weapons/pentagon-skeptical-iranian-hypersonic-claims>

Career Workforce Development Chair Opening on the AIAA St. Louis Section Council

The St. Louis Section has the Chair position open on its Council for the Career Workforce Development Committee. The Career Workforce Development Committee is responsible for planning and implementing programs and activities that can assist an engineer's career.

If you are interested, or would like additional information about this role, please contact Charlie Svoboda, at charles.svoboda@boeing.com.

Upcoming Events

Date	Information
Tuesday December 6 6-8 PM CT <i>Technical Specialist Meeting</i>	Technical Specialist Meeting Presentation: <i>Part 1 of 2: Active Flow Control in the DARPA CRANE Program and Shape Memory Alloy Technologies</i> Presenters: Rene Wosidlo and Doug Nicholson, Technical Lead Engineers at Boeing Location: St. Louis University, 240 N Grand Blvd, St. Louis, MO 63103, Tegeler Hall, Carlo Auditorium RSVP using the JOTform link: https://form.jotform.com/223323144166145
Tuesday December 13 5-8:30 PM CT <i>Dinner Meeting</i>	12th AIAA Member Appreciation Event Please join the members of the St Louis Section as we recognize the membership anniversaries of a number of our longtime AIAA colleagues. Come and show your appreciation for these members who have been with AIAA for 25, 30, ...45, and even 60+ years. Presentation: <i>Apollo 17 –Last Manned Mission to the Moon</i> Presenter: Kirk Kittell, Boeing Systems Engineer Location: Orlando's, 2050 Dorsett Village, Maryland Heights, MO 63043 RSVP using the JOTform link: https://form.jotform.com/223126324006139
Thursday December 15 <i>Technical Specialist Meeting</i>	Technical Specialist Meeting Tour of the Boeing AFC/SMA Laboratory. Stay tuned for further details regarding time, location, and registration.

AIAA St. Louis Section Council

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Advisor	Jackie Blumer	----	jblumer@bccu2.org
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Newsletter	Jim Guglielmo	314-452-1271	james.j.guglielmo@boeing.com
Programs – Dinner Meetings	Bob Dowgwillo	314-458-1504	hkdrmd@icloud.com
Programs – Tech Specialist	John Schaefer	314-232-9331	john.a.schaefer3@boeing.com
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Webmaster	Mario Santos	314-813-4367	mario.j.santos@boeing.com
Young Professionals	Dan Donahue	----	

If you are interested in joining one of the committees, please contact the AIAA St. Louis Section Chair, Charlie Svoboda, or the committee chairperson.



American Institute of Aeronautics and Astronautics

St. Louis Section

Tuesday, December 6, 2022

St. Louis University

240 N Grand Blvd, St. Louis, MO 63103

Tegeler Hall, Carlo Auditorium

Part 1 of 2: Active Flow Control in the DARPA CRANE Program and Shape Memory Alloy Technologies

Presented by Drs. Rene Woszidlo and Doug Nicholson, Technical Lead Engineers at Boeing



The Control of Revolutionary Aircraft with Novel Effectors (CRANE) program aims to design, build, and flight test a novel X-plane that incorporates Active Flow Control (AFC) as a primary design consideration. CRANE seeks to optimize the benefits of active flow control by maturing technologies and design tools, and incorporating them early in the design process. The first half of this presentation will focus on AFC and its use on CRANE.

Shape Memory Alloy (SMA) is an exciting new actuation technology that holds the promise of revolutionary new capability for aerospace products. Recent demonstrations included actuated wind tunnel models, an adaptive trailing edge, variable geometry chevrons and SMA reconfigurable technology – vortex generators (SMART-VG) technologies. The second half of this presentation will provide an overview of SMA actuation technology and its current and potential uses in aerospace.

Dr. Rene Woszidlo currently resides as a technical lead engineer and Boeing Designated Expert for Active Flow Control (AFC) Technology in Boeing Research and Technology (BR&T) on the Integrated Vehicle Systems (IVS) team. His current work focuses on the development and transition of AFC technology, including AFC actuators and systems with particular focus on designing future aircraft with AFC. Dr. Doug Nicholson also works on the BR&T IVS team, as a technical lead engineer. His current work focuses on the development and transition of smart materials and adaptive structures for aerospace applications. Rene and Doug are both experts in their field, and collectively have authored over 70 scientific publications.

Schedule

- 6:00 – 6:30 Sign-in / social
- 6:30 – 7:15 CRANE and AFC + Q&A
- 7:15 – 8:00 SMA Presentation + Q&A

RSVP by December 5 using our Jotform

<https://form.jotform.com/223323144166145>

Contact [John and Alex](#) for questions

Menu

Sandwiches and
Light Refreshments

Ticket Price

Free

Part 2 of 2 will include a tour of the Boeing AFC / SMA Lab. Stay tuned for more info!





December 13, 2022

12th AIAA Member Appreciation Event

Please join the members of the St Louis Section as we recognize the membership anniversaries of a number of our longtime AIAA colleagues. Come and show your appreciation for these members who have been with AIAA for 25, 30, ...45, and even 60+ years.

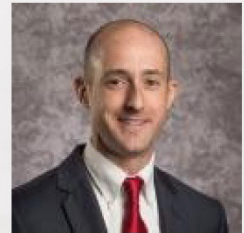
Special Presentation: 'Apollo 17 – Last Manned Mission to the Moon'

Presented by Kirk Kittell



Apollo 17 returned to Earth on December 19, 1972, bringing Project Apollo to a close after a decade of relentless effort to turn a bold national goal into reality. Let's honor Apollo 17 on its 50th anniversary by celebrating the thousands of people who made the mission and the things they created—from astronauts and flight controllers we've seen in the spotlight, to the machinists who milled structures and welded gantries, to the scientists who fabricated instruments and trained the astronauts, and to the engineers who designed and tested the systems to ensure mission success. As we look forward to the scientific discoveries to be made by the Artemis program, let's celebrate the accomplishments of the Apollo 17 mission and those who made it possible.

Kirk Kittell is a systems engineer at Boeing, working on the MQ-25 software. Before working on aircraft, he worked on the Orion Launch Abort System at Orbital Sciences and in the Mission Evaluation Room at NASA Johnson Space Center on Space Shuttle missions STS-124 and STS-126. He has a BS and MS in Aerospace Engineering from University of Illinois and an MBA from Washington University in St. Louis.



Raffle of LEGO Apollo Saturn V



As part of our annual holiday drive, please bring an unwrapped toy for



**Attendance
Door Prizes!**

Schedule	Where	Cost
Tuesday, December 13, 2022 5:01 pm – Social time w/ Open Bar 5:43 pm – Buffet Dinner 6:55 pm – Member Appreciation Program 7:17 pm – Presentation 8:29 pm – Adjourn Reservation Deadline: 11:55 am on Wednesday, 7 December 2022 Use link below: https://form.jotform.com/223126324006139 Reservation Contact: Brad Sexton (314-232-7826) bradley.w.sexton@boeing.com	Orlando's 2050 Dorsett Village Maryland Heights, MO 63043 314-453-9000 Dinner Menu: Beef Bordelaise Italian Chicken Spedini Bacon Cheddar Mashers Cavatelli Broccoli Green Beans Amandine Italian Garden Salad Dinner Rolls and Butter Assorted Holiday Sweets	\$17 per person Membership is <u>NOT</u> required to attend this event. All are Welcome 😊



SCITECH 
23-27 JANUARY 2023
NATIONAL HARBOR, MD & ONLINE

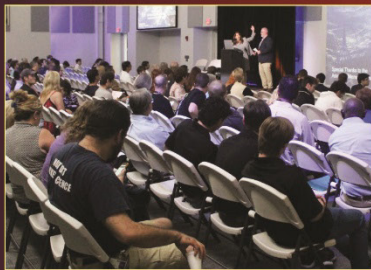
TEACHER FRIDAY:
**EDUCATOR PROFESSIONAL
DEVELOPMENT WORKSHOP**
AT AIAA SCITECH FORUM

FRIDAY, 27 JANUARY 2023

0800-1630 hrs ET

Gaylord National Resort & Convention Center, National Harbor, Maryland

Hear from educators and engineers about the emerging aerospace challenges of the 21st century and learn how to introduce advanced STEM concepts into your classrooms. Find out about newly developed standards-based curriculum and integrated projects that can be introduced in the classroom, including small satellites and weather balloons.



REGISTER FOR FREE WITH CODE **ST23TF**
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*select one-day registration at checkout

For more information, contact k-12stem@aiaa.org

