



Winter 2017-18 Newsletter

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Chi Mai, Editor

AIAA HQ ANNOUNCEMENTS

AIAA Engage

AIAA has deployed the AIAA Engage platform (<https://engage.aiaa.org/>), a member resource to connect to nearly 30,000 AIAA members. AIAA Executive Director Dan Dumbacher hopes it becomes a place where members can share “ask for advice, share your experiences, and build relationships with other passionate aerospace practitioners.”

AIAA members automatically began receiving daily digests in late January of the open-forum activities occurring on AIAA Engage.

In addition to the Open Forum community, AIAA in the near future will be transitioning section webpages from SharePoint to Engage.

Membership Advancements

Congratulations to Dr. Angela Diggs for being named a [Class of 2018 Associate Fellow](#)!

Nominations and references are now being accepted for Class of 2019 Associate Fellows. Nominations are due 15 April, and references are due 15 May.

Visit <http://www.aiaa.org/AdvanceYourMembership> for requirements and forms. Contact our Membership chair at michael.kelton.1@us.af.mil or at nwfl.aiaa@gmail.com for assistance.

Award Nominations

Nominations are open for several national AIAA awards and are due 1 July. For more information, visit <https://www.aiaa.org/OpenNominations/>.

UP FRONT

Distinguished Lecture

Richard P. Hallion

The History of Hypersonics

Thursday, 15 March, 10:30 am, UF REEF

AIAA NWFL will host Distinguished Lecturer and local AIAA Fellow, Dr. Richard P. Hallion for his talk examining how hypersonic flight evolved from a dream of the great pioneers of astronautics to a practical field of technical inquiry. View the [event flier](#) on our SharePoint site, and RSVP to nwfl.aiaa@gmail.com.

Space Systems TC Essay Contest

The AIAA Space Systems TC is hosting its national annual essay contest for 7th and 8th-grade students. This year's topic is to “describe the role of astronautics and their impact on NASA, their impact on the future of the United States, and their impact on international partnerships.” Submissions are due to nwfl.aiaa@gmail.com by Saturday, March 31. See the [contest flier](#) for more information.

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UPCOMING EVENTS, DATES, AND DEADLINES

National

[Membership Advancements](#)

Associate Fellows

Nominations Due: 15 Apr 2018

References Due: 15 May 2018

[Award Nominations](#)

Nominations Due: 1 Jul 2018

[Congressional Visits Day 2018](#)

20-21 March 2018—Washington, DC

Each year, hundreds of aerospace professionals hit “The Hill” as part of Congressional Visits Day (CVD) to discuss our most pressing issues in the aerospace world with our Representatives, Senators, and their staffs. Through a day of discussion with lawmakers on the Institute’s Key Issues, you will help lawmakers understand the importance of aerospace to our nation and what must be done to ensure a healthy and thriving aerospace community.

[DEFENSE 2018](#)

8-10 May 2018—Laurel, MD

Early Bird Registration Deadline: 23 Apr 2018

[AVIATION 2018](#)

25-29 Jun 2018—Atlanta, GA

Manuscripts Due: 16 May 2018

Early Bird Registration: 12 Mar - 4 Jun 2018

[Propulsion and Energy 2018](#)

9-11 Jul 2018—Cincinnati, OH

Manuscripts Due: 13 Jun 2018

Early Bird Registration: 1 Apr - 18 Jun 2018

[SPACE 2018](#)

17-19 Sep 2018—Orlando, FL

Manuscripts Due: 16 Aug 2018

Early Bird Registration: 18 May - 27 Aug 2018

[SciTech 2019](#)

7-11 Jan 2019—San Diego, CA

Regional

[Region II Student Conference](#)

The next Region II Student Conference will be 5-6 April at the University of South Alabama in Mobile, AL. Conference organizers are seeking corporate sponsors and on-site judges. There is no fee for professional members to attend the conference.

Section

Executive Council Meetings

*Bamboo Sushi Bar & Hibachi Express, Niceville, FL
2nd Monday of the month, 11:30 am*

If interested in attending, please let us know by e-mailing nwfl.aiaa@gmail.com so that we can inform you of any changes to the meeting.

Distinguished Lecture: Dr. Richard P. Hallion

The History of Hypersonics

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Lunch and Learn: Dr. Elisabetta L. Jerome

Air Force Test Center

Thursday, 5 April, 11:00 am, AFRL Bldg. 13, Eglin AFB

AIAA NWFL will host Senior Executive Service member Dr. Elisabetta “Betta” Jerome, Technical Advisor for Armament and Weapons Test and Evaluation, for a lunchtime talk. More details along with instructions for non-DoD members to attend will be sent soon.

RECENT EVENTS

Technical Talk—Special Relativity

Chi Mai

At the end of September, AIAA Associate Fellow Dr. John Fay presented a technical seminar on Einstein's theory of special relativity. The seminar talk was designed as a lunch-and-learn presentation for the general public and explained special relativity with no mathematics beyond high school algebra and coordinate geometry. Five people attended the talk, including two students from the FSU student branch.

The seminar was a tribute to Dr. Albert Einstein's 1905 special relativity paper, "On the Electrodynamics of Moving Bodies." The seminar gave a brief biography of Dr. Einstein and summarized the state of physics just before 1905, Einstein's *annus mirabilis* (miracle year) in which he published the special relativity paper in addition to three other groundbreaking papers. Dr. Fay then derived some of the basic results of special relativity: time dilation and length contraction. A Q&A was held after the seminar.



John Fay and Peter Zipfel discuss special relativity.



John Fay answers questions and inquiries from attendees.

Burgers, Brats, Beers, and Bombs

Chi Mai

At the beginning of November and well into the fall season, the AIAA Northwest Florida section hosted "Burgers, Brats, Beers, and Bombs!", a social and recruiting event.

AIAA members, non-members, and family members were invited to guided tours of the Air Force Armament Museum, which has indoor and outdoor static aircraft displays in addition to indoor munitions displays. Attendees then enjoyed a cookout and socialized with each other.

Thirteen professional members, spanning from recent graduate to two-time retiree, as well as eight family members attended the event. Two of the professional members recently relocated to the Northwest Florida section. The section hopes to make this a regular event.



Ryan Sherrill grilling for the cookout with Judy Sherrill and Kevin Diggs.



AIAA members and family members at the cookout at the Air Force Armament Museum.

RECENT EVENTS (CONT.)

AIAA/ASME Holiday Party

Ryan Sherrill

At the end of November, the AIAA Northwest Florida section hosted a joint holiday party with the local ASME Northwest Florida Section at Dockside Café and Oyster Bar in Niceville, FL.

Dr. David Lambert, Chief Scientist of the Air Force Research Laboratory Munitions Directorate, was the guest speaker and discussed the importance of professional organizations and why you should be active in them.

In addition to Dr. Lambert's talk, there was a White Elephant gift exchange and a Holiday Movie meet-and-greet trivia activity. The event was attended by four AIAA members, six ASME members, and one prospective member.



Dr. David Lambert discusses the importance of professional organizations and being active in them.



AIAA and ASME members attending the Holiday Party.

OUTREACH

College/University

AIAA NWFL Hosts FSU Summer Researchers

Angela Diggs

Dr. Angela Diggs, Dr. Chi Mai, and Dr. John Fay hosted a summer research group of undergraduate and graduate students from Florida State University. The group was composed of graduate student coordinators from FSU and undergraduate researchers from universities across the country.

The groups began with tours of the Advanced Warheads Experimentation Facility on the Eglin Air Force Base range where they heard an overview of the Air Force Research Laboratory Munitions Directorate, toured the test ranges, and toured the gas-gun lab.

Students then attended an outbrief by elementary and middle school students for a summer robotics program at Northwest Florida State College, where they were able to give feedback and encouragement to the younger students. The FSU group then enjoyed a BBQ lunch with AIAA members and a tour of the Air Force Armament Museum by Dr. John Fay.



FSU student researchers enjoy lunch with AIAA members.

OUTREACH (CONT.)

K-12

Engineers as Educators

Angela Diggs

Mr. Rick Soria and Dr. Angela Diggs hosted an Engineers as Educator lunch-and-learn session on 6 July for professional and educator associate members. Mr. Rick Soria led the groups in a new STEM lesson, LEGO Tetris, which challenged the members to manipulate the LEGO pieces into specific shapes, as well as calculate the area and perimeter. The final challenge was a team-building event that required the members to recreate the optimized shape within a set of limitations (certain team members were not able to see, talk, or touch the LEGO pieces).



Educator Associate Rick Soria guides AIAA professional and educator associate members in the LEGO Tetris lesson.

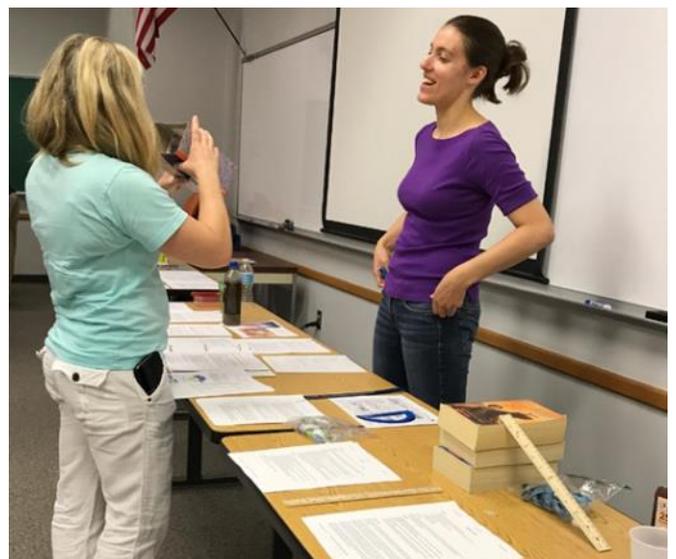
STEM Expo

Angela Diggs

Dr. Angela Diggs and Mr. Rick Soria hosted a STEM Expo at the UF REEF campus for local K-12 educators to showcase local STEM resources to kick off the new school year. The I LOVE Science lessons and Engineers for America sorties were featured with copies for the educators to take home. Representatives from local FIRST LEGO League and FIRST LEGO League Jr teams were present to showcase the various programs, robots, and programming languages. Lunch was provided to all attendees.



FIRST LEGO League coach Judy Sherrill shows the capabilities of the EV3 robot.



STEM intern Bethany Campbell shares the I LOVE Science and Engineers for America STEM lessons with a homeschool parent.

OUTREACH (CONT.)

K-12 (cont.)

Fort Walton Beach Homeschool Group Outreach

Angela Diggs

Dr. Angela Diggs and Dr. John Fay presented to the Fort Walton Beach Homeschool Group at the Fort Walton Beach Library on 15 November 2017.

Dr. Diggs met with the parent-educators to discuss materials and support available to the group from the Northwest Florida AIAA, including the I LOVE Science lessons and FIRST robotics. She also discussed the resources available to the educators from national AIAA, including the Micro-Lessons and classroom grants.

While Dr. Diggs was meeting with the parent-educators, Dr. John Fay helped one of the parents lead the students in the I LOVE Science lesson “Lunar Lander” (adapted from the NASA lesson of similar title) where the students were challenged to design and build a lunar lander meeting specific requirements. The landers were tested through drops from various heights to determine if the astronauts (marshmallows!) were still firmly secured within the lander.



Students design their lunar landers to meet requirements.



John Fay counsels a student group on their lander design.

I LOVE Science

Angela Diggs

The Northwest Florida Section of AIAA is once again hosting the I LOVE Science program in Okaloosa County Schools. The STEM outreach program is designed to last the entire school year, with volunteers visiting classrooms once a month for one-hour STEM projects. The lessons are available for kindergarten through fifth grade and emphasize the scientific method. Each lesson aligns with a Florida state standard in math or science and includes a student data sheet, teacher information sheet, and volunteer outline. The volunteer outline includes a sample script for volunteers to use in the classroom, and materials list, and a detailed procedure.



Kevin Diggs explains the concepts of energy and energy transfer between potential and kinetic states to 4th graders in the “Gravity of It All” lesson.

OUTREACH (CONT.)

K-12 (cont.)

Paxton Science Night

John Fay and Angela Diggs

On 12 December 2017, Paxton School held their 2nd annual Science Night during home girls & boys basketball games. Science Night featured multiple STEM stations, including Sphero robots, Oobleck, a flight simulator, straw rockets, a telescope, and “Are you smarter than a Bobcat?”. Students received raffle tickets for each STEM event they participated in, and over 1000 raffle tickets were collected for the prize drawing.

The Northwest Florida AIAA Section contributed to the STEM activities by providing active-duty pilot “Fletcher” to run the flight simulator, materials and training for the straw rockets, and AIAA Associate Fellow Dr. John Fay treated the students and parents to a view of the night sky from his telescope. Additionally, the Section provided the mini-Sphero robots for the half-time raffle. The event was a great success, and the home teams won the basketball games!



Volunteers help students create and launch straw rockets.



Eglin AFB pilot “Fletcher” assists students in the flight simulator.



John Fay helps students use a telescope.



Student raffle winners show off their Sphero Mini robots.

ABOUT THE SECTION

The Northwest Florida Section of the American Institute of Aeronautics and Astronautics, Inc. (AIAA NWFL) is home to about 290 members (as of January 2018): 128 professionals, 125 educator associates, and 38 students.

The section spans 24 counties across northern Florida from Pensacola to north of Jacksonville. These counties are: Escambia, Santa Rosa, Okaloosa, Walton, Holmes, Washington, Bay, Jackson, Calhoun, Gulf, Gadsden, Liberty, Franklin, Leon, Wakulla, Jefferson, Madison, Taylor, Hamilton, Suwanee, Lafayette, Columbia, Baker, and Nassau.

Most of the aerospace-related activities in the AIAA NWFL section are at military installations in the western panhandle.

Officer/Chair E-mail:
nwfl.aiaa@gmail.com

Facebook:
<https://www.facebook.com/groups/NWFL.AIAA/>

SharePoint:
https://info.aiaa.org/Regions/SE/NW_FL/default.aspx

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VACANT—Open for Volunteers!

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To set up, go to <http://smile.amazon.com>, and search for “American Institute Of Aeronautics And Astronautics Niceville, FL”.

Alternatively, use this direct link to set up: <http://smile.amazon.com/ch/59-3105873>

AIAA NWFL Facebook Group

AIAA NWFL has transitioned from a Facebook page to a Facebook group! We hope this is a more engaging way to communicate than e-mails and the SharePoint site. Like us and contribute!

<https://www.facebook.com/groups/NWFL.AIAA/>