



Spring 2017 Newsletter

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Chi Mai, Editor

AIAA HQ ANNOUNCEMENTS

AIAA Leadership Changes

AIAA Executive Director Sandy Magnus will step down in early 2018. The search for a new executive director is underway and is expected to be complete by December 2017.

Voting under the new governance structure occurred for the first time this year. The president-elect is John Langford. Closer to home, the new Region II Director is Kurt Polzin, who was recently the Chairperson for the Greater Huntsville Section.

Membership Advancements

Nominations/references are being accepted for the grades of Fellow and Honorary Fellow.

Visit <http://www.aiaa.org/AdvanceYourMembership> for requirements and forms. Contact our Membership chair at nwfl.aiaa@gmail.com for assistance.

Nominations are due 15 June, and references are due 15 July.

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

Section Nomination Results

AIAA NWFL officer and chair nominations were held in March, and no positions were contested. The 2017-2019 AIAA NWFL officers and chairs are:

Officers

- **Chairperson** Chi Mai
- **Vice Chairperson** Benjamin Dickinson
- **Secretary** Angela Diggs
- **Treasurer** Kevin Diggs

Chairs

- **Program & Technical** Eugen Toma
- **Membership** JR Dreier
- **Education Outreach** Angela Diggs
- **Honors & Awards** Michael Kelton

The positions of Career Enhancement/Young Professional Chair and Public Policy Chair are still open. Contact us at nwfl.aiaa@gmail.com if you're interested!

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UPCOMING EVENTS, DATES, AND DEADLINES

National

[Membership Advancements](#)

Fellows & Honorary Fellows

Nominations Due: 15 Jun 2017

References Due: 15 Jul 2017

[Award Nominations](#)

Nominations Due: 1 Jul 2017

[AVIATION 2017](#)

5-9 Jun 2017—Denver, CO

[Propulsion and Energy 2017](#)

10-12 Jul 2017—Atlanta, GA

Early Bird Registration Deadline: 19 Jun 2017

[SPACE 2017](#)

12-14 Sep 2017—Orlando, FL

Early Bird Registration Deadline: 22 Aug 2017

[SciTech 2018](#)

8-12 Jan 2018—Kissimmee, FL

Abstract Deadline: 12 Jun 2017

[DEFENSE 2018](#)

8-10 May 2018—Laurel, MD

Regional

Region II Student Conference

The next Region II Student Conference will be in spring 2018 at the University of South Alabama in Mobile, AL. Details will be communicated when they are finalized.

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.

Section Activities

The AIAA 'section year' has wrapped up for 2016-2017. Thank you for coming to our events this year!

Over the summer, the executive council will be planning activities for the 2017-2018 year. If you have suggestions or wish to participate in the planning, please e-mail us at nwfl.aiaa@gmail.com.

SFTE Annual Symposium

The Emerald Coast Chapter of the Society of Flight Test Engineers is hosting the 48th SFTE Annual Symposium at the Henderson Beach Resort in Destin, FL 30 October to 3 November.

Abstracts are currently being accepted until 7 July. For more information, see the event website:

<https://www.sfte.org/services/publications/sfte-news/550-48th-annual-international-call-for-papers>

RECENT EVENTS

Distinguished Lecture & F-35 Tours

Eugen Toma

The AIAA Northwest Florida section welcomed back Lt. Col. Tucker “Cinco” Hamilton, a USAF experimental fighter test pilot, as this year’s distinguished lecturer.

The event started in the morning with Cinco leading a tour of the F-35 Lightning II at Eglin AFB to a group of 17 people ranging from AIAA student members from Florida State University (FSU) and the University of South Alabama (USA) to members of the Junior Force Council from the Air Force Research Laboratory (AFRL) Munitions Directorate. Cinco discussed the F-35’s technological advantages as well as its flying qualities.

After the morning tour concluded, Cinco relocated to the University of Florida REEF in Shalimar, FL where he presented his talk, “Making a Difference,” which covered his life experiences from being a USAF test pilot to being an advocate for STEM outreach. Over 50 AIAA professionals, educator associates, students, and community members were in attendance. AIAA NWFL sponsored a pizza lunch after the lecture for attendees to interact with Cinco and with each other.

In the afternoon, the AIAA student members who had toured the F-35 in the morning were led on an engineer’s tour of the Air Force Armament Museum by AIAA Associate Fellow Dr. John Fay

Also in the afternoon, Cinco led a second tour of the F-35 Lightning II to group of over 20 AIAA professional members. The tour started with the gathering in the pilot’s ready room and then proceeded to the hangar where the F-35 Lightning II was stationed. Cinco walked around the aircraft while explaining all unclassified components and features of the JSF. The tour concluded with a Q&A session followed by a group photo.



AIAA student members from FSU and USA as well as members of the AFRL Munitions Directorate Junior Force Council learned about the F-35 Lightning II from USAF experimental fighter test pilot Lt. Col. Tucker Hamilton.



Distinguished lecturer Lt. Col. Tucker “Cinco” Hamilton, USAF, presents his lecture, “Making a Difference” to lecture attendees.



AIAA professional members and educator associates as well as community members tour the F-35 Lightning II at Eglin AFB with USAF experimental fighter test pilot Lt. Col. Tucker Hamilton.

OUTREACH

College/University

AIAA NWFL Hosts USAFA Cadets

Benjamin Dickinson

On 14 April, AIAA Senior Member Benjamin Dickinson welcomed to Eglin AFB six United States Air Force Academy (USAFA) cadets enrolled in a missile aerodynamics course taught by former AIAA NWFL chairperson Gregg Abate.

Cadets were introduced to the role and ongoing activities of the Air Force Research Laboratory (AFRL) Munitions Directorate. The introduction involved an AFRL showcase from Lt. Michael Dotson and Mr. Joe Letsinger.

Next, AIAA Senior Members Dr. Daniel Reesor and Dr. Ben Dickinson gave presentations on their work in AFRL. Dr. Reesor discussed the CFD capabilities in his branch. Dr. Dickinson talked about an upcoming missile project and control of hypersonic vehicles.

The group went to lunch at The Boathouse Landing in Valparaiso, FL and finally took a tour of the Air Force Armament Museum in Shalimar, FL.



AIAA Senior Member Daniel Reesor presents a lecture on CFD capabilities at the AFRL Munitions Directorate to USAFA cadets.



USAFA cadets visited the AFRL Munitions Directorate with Ben Dickinson and Gregg Abate on a trip to Eglin AFB.

K-12

High School Field Trip to Eglin AFB

Angela Diggs

In January 2017, the AIAA NWFL section hosted 60 Walton and Holmes County high school students to tour Eglin AFB. Students from Paxton, Bethlehem, Poplar Springs, and Ponce de Leon toured the McKinley Climatic Laboratory and King Hanger, enjoyed lunch with AIAA professional members, and received an “engineer’s tour” of the Air Force Armament Museum from AIAA Associate Fellow John Fay.



Walton and Holmes County students tour McKinley Climatic Lab.



Walton and Holmes County students tour King Hangar.



Walton and Holmes County high school students tour the Air Force Armament Museum.

OUTREACH (CONT.)

K-12 (cont.)

I LOVE Science

Angela Diggs

The AIAA NWFL section supported seven local schools (Lewis, Edge, Eglin, Longwood, Elliot Point, St. Mary's, and Northwood) this year with the I LOVE Science program.

The I LOVE Science program was developed locally by AIAA Educator Associate Karen Sledge and AIAA Senior Member Angela Diggs to directly tie fun science lessons into Florida state standards for mathematics and science. The one-hour lessons have been developed for third, fourth, and fifth grades such that STEM volunteers can present the lessons in the classroom once a month with no repeats over the three years.

The AIAA NWFL section has coordinated with local STEM volunteers to provide these lessons to over 750 Okaloosa county school students during the 2016-2017 academic year. The NWFL section funded the purchase of materials required for these lessons.

This year, the NWFL section collaborated with the Society of American Military Engineers (SAME) to purchase supplies, allowing additional schools to participate. The lessons are available on the AIAA NWFL SharePoint site for others to use if desired.



Lewis School students benefit from additional STEM lesson equipment afforded by a SAME grant.

East Panhandle Regional Science & Engineering Fair

Brian Sytsma, written by Chi Mai

The Okaloosa County School District Science Fair was held on February 1 at the Northwest Florida Fairgrounds in Fort Walton Beach. The AIAA NWFL Section continued its tradition each year of endowing special awards on students whose projects showed excellence in aerospace-related topics. This year's winning special projects included solar panels, Tesla turbines, 3-D printed aircraft, and space suits.

Several people volunteered as judges on behalf of the section: Jeff Garnand-Royo, Brian Sytsma, and AIAA Senior Members Crystal Pasiliao, Peter Ireland, and Dan Mazzeo.

Two students each were recognized at the junior and senior levels with cash prizes of \$100 and \$50 for the winners and runners-up in each level. The awards were presented at a ceremony held on February 7 at Saint Mary Catholic School in Fort Walton Beach.



Brian Sytsma presents certificates and awards to students whose topics in the East Panhandle Regional Science & Engineering Fair exhibited excellence in aerospace-related topics.

OUTREACH (CONT.)

K-12 (cont.)

STEM Educator Workshop

Rick Soria and John Fay

In celebration of National Engineers Week in February, the AIAA NWFL section co-hosted with Hurlburt Chapter #398 of the Air Force Association (AFA) an educator workshop at George T McCutchan Airport east of Milton, FL for about a dozen STEM professionals and educators across three local counties.

LEGO robotics training was offered for Mindstorms EV3 in the morning by Doolittle Institute Director of STEM Education Outreach Beth Hanning and for WeDo in the afternoon by AIAA Educator Associate Rick Soria. The programming modules, student engagement materials, and hands-on examples were provided.

STEM lessons with on air resistance (taught by AIAA Educator Associate Karen Sledge), water rockets, and the use of telescopes (led by AIAA Associate Fellow John Fay) were discussed. Student data sheets and how to introduce the lessons were discussed, and the educators and professionals then completed the lessons in groups.

John Fay offered to visit teachers' classrooms with his telescope and give a grade-level appropriate presentation to their students for the "Have Telescope, Will Travel" AIAA classroom activity.

After lunch, aeronautical engineer, author, and AIAA Senior Member Ken Blackburn gave a presentation on his world-record paper airplane design, the aerodynamic forces of flight, and how to use paper airplanes as a classroom activity for elementary school students. Complimentary copies of his book were autographed and given to the educators.

Strong winds prevented retired military pilots from taking workshop attendees on airplane flights. However, even the brisk winds were not strong enough to keep former World RC champion Steve Rojecki from demonstrating a small quadrotor UAV and graphite frame aircraft in the hangar.

Also in lieu of the flights, John Fay gave an off-the-cuff presentation of the Earth Impact Effects Program with teachers following along by running the app on their smartphones. Dr. Fay also described some of the major meteorite impacts of the last century, giving educators a taste of another AIAA classroom lesson.



AIAA Educator Associate Beth Hanning trains educators on LEGO Mindstorms EV3 robotics for FIRST LEGO League.



Educators participate in STEM lessons.



Steve Rojecki demonstrates a quadrotor UAV.

STEM Lesson: Lunar Lander

Angela Diggs

The AIAA NWFL section has provided materials for the NASA lesson "Lunar Lander" to be presented in multiple schools this academic year. Thus far, 114 kits have been produced, reaching approximately 570 students in the Okaloosa County School District.

OUTREACH (CONT.)

K-12 (cont.)

Boys & Girls Club Education Day

Rick Soria

On May 6, the Boys & Girls Club of the Emerald Coast hosted its inaugural Education Day at the Fort Walton Beach Teen Club. Education Day focused on STEM activities, and Club members participated in several projects designed to stimulate their ideas about STEM.

Education Day was hosted by Boys & Girls Club staff and Hurlburt Chapter #398 Air Force Association (AFA) volunteers. Members of the AIAA NWFL section volunteered to support the event. AIAA Associate Fellow John Fay gave opening remarks and did a great job of motivating the students for the day's events. AIAA Educator Associates Karen Sledge and Rick Soria worked with Club members at individual experiment stations.

Ninety-four Club members, ages 6 to 17, from six local Boys & Girls Clubs participated in STEM activities:

- 1) Air Power: Club members compared turbine blades to determine which blade shape and fan speed developed the most voltage.
- 2) Chopper: Club members used helicopters to demonstrate the importance of identifying independent and dependent variables.
- 3) Tricky Trajectory: Club members participated in a competition with straw rocket made of a 35-mm plastic film canister, water, and Alka-Seltzer.

The scientific method and data collection methods were emphasized throughout the day.

Boys & Girls Club members had a great time competing in the events and learning about the science behind great activities. One Club member, age 8, said, "This has been a really fun day, and I hope we can do this again soon." Rob Engel, a Club staff member, said, "It has been a wonderful day watching so many kids have a lot of fun conducting science experiments. I am very excited for our partnership with the AFA, AIAA, and Boys & Girls Club of the Emerald Coast, and we are already planning our next Education Day.



AIAA Associate Fellow John Fay makes opening remarks at the Boys & Girls Club inaugural Education Day.



AIAA Educator Associate Rick Soria instructs Club members at the Air Power activity station.

ABOUT THE SECTION

The Northwest Florida Section of the American Institute of Aeronautics and Astronautics, Inc. (AIAA NWFL) is home to about 237 members (as of April 2017): 123 professionals, 96 educator associates, and 18 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/NWFL.AIAA>

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

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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>

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Public Policy Chair

VACANT—Open for Volunteers!

AIAA NWFL Facebook Page

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

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