

MAY-JUNE 2013

AIAA NEWSLETTER

ELECTION RESULTS

The Officer election for July 1, 2013 through June 30, 2014 has concluded. Thank you to all who took the time to vote. Your new Delaware Section Officers are:

CHAIR: Eric Spero
VICE-CHAIR: Breanne Wooten
SECRETARY: Doug Burg

TREASURER: Doug Burg
Erika Conly

AIAA BUS TRIP

The bus trip to the Smithsonian National Air and Space Museum in Washington, DC will be held on Saturday, June 22, 2013. The announcement is shown later in this newsletter.

AIAA DELAWARE SECTION SOCIAL MEDIA

The AIAA Delaware Section web site is active. Please visit https://info.aiaa.org/Regions/NE/Del/default.aspx or navigate there via the AIAA National web site at: www.aiaa.org. We invite you to visit your Section's web site and provide any comments or suggestions.

Also, please visit any one of our many social media outlets:







AIAA DE on LinkedIn



@AIAA DE on Twitter



AIAA DE on Facebook

THE DELAWARE FLIER

PUBLISHED BY AND FOR THE MEMBERS OF THE AIAA DELAWARE SECTION

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For your reference, the officers and council members for the 2012-2013 term are listed below:

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Vice-Chair

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Timothy, Dominick @ ATK, com

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RAC Representatives

Dave Rosenberg and Eric Spero

THE DELAWARE SECTION

The Delaware Section is part of the American Institute of Aeronautics and Astronautics, the principal society and voice serving the Aerospace profession. The AIAA primary purpose is to advance the state of the art, sciences and technology of aeronautics and astronautics and to promote the professionalism of those engaged in these pursuits. The institute serves as the vehicle for focusing the energies and interests of its members in their own technical and professional development and service to society.

AIAA WEB SITE

The AIAA Web site (www.aiaa.org) continues to receive over 45,000 visits per month and serves as a point-of-purchase for memberships, meeting registrations and subscriptions. It also provides access to bibliographic data of AIAA meeting papers for the past five years as well as connections to web sites of individual AIAA section chapters.

MEMBERSHIP

We continue to be encouraged by the number of new or prospective members that have recently shown an interest in the Delaware AIAA. If you know of any prospective members, please have them call Dave Rosenberg, Membership Chair, to obtain an application. If you wish to be upgraded to Senior Member, Associate Fellow or Fellow, also contact him for details and an upgrade application form.

ARE YOU HAVING A MEMBERSHIP OR SUBSCRIPTION PROBLEM?

If you are having a membership or subscription problem you can contact AIAA customer service at 1/800-639-2422 or via fax at 703/264-7657.

If the AIAA staff is not responsive, let your AIAA Ombudsman, John Walsh, cut through the red tape for you.

John can be reached at 703-893-3610 or by writing to him at: 8800 Preswould Place, McLean, VA 22102.

AIAA DELAWARE'S ANNUAL BUS TRIP TO THE SMITHSONIAN NASM

Thank you for your interest in our annual bus trip – all of the seats on the bus are taken at this time!

AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS









— Saturday, June 22, 2013

What: Bus trip to the Smithsonian National Air and Space Museum in Washington, D.C.

When: Saturday, June 22, 2013

Where: Bus will depart from the ATK Elkton parking lot (off of Route 40)

Depart ATK Elkton 9 AM
Arrive at Smithsonian ~11 AM
Depart Smithsonian 5 PM
Return to ATK Elkton ~7 PM

How much: \$5 for AIAA members, \$10 for nonmembers. Payment accepted the day of the event, but prepayment is preferred. Payments non-refundable.

Contact: Make a reservation on the bus by calling: Taylor Donaldson – (410) 392-1022; william.donaldson@atk.com Tim Dominick – (410) 392-1069; timothy.dominick@atk.com

RSVP by June 7, 2013

For more information on joining AIAA, contact: Tim Dominick – (410) 392-1069; timothy.dominick@atk.com

AIAA LUNCH LECTURE SERIES PROGRAM

The seventh and final Lunch Lecture Series Program for 2012-2013 was held at noon on Tuesday, April 30, 2013 in the G-29 ATK-Elkton Executive Conference Room. The topic was a DVD presentation, "The Mighty Saturns – Saturn 1 and 1B". There were 28 attendees.

AIAA INFORMATION

As of April 1, 2013, there were 25,269 professional AIAA members of whom 4,382 were international members. There are also 4,295 Educator Associate Members and 8,152 student members. There are 97 corporate members (including ATK) of which 12 are International companies. There are 66 technical committees. Your local Delaware AIAA Section has 69 professional members not including 11 Educator Associates and 7 Student Member. The Delaware Section membership distribution includes: Member 16, Associate Fellow 10, Fellow 2, Senior Member 41.

AIAA Membership

The AIAA is continuing its popular Membership Renewal program. Current members can obtain \$5 in AIAA store credits for each new member recruited. Details can be found at: http://www.aiaa.org/content.cfm?pageid=332 by clicking on the right side under "Come Tell Your Friends about AIAA". So share the wealth. You know the valuable resources that AIAA offers. Tell a friend or colleague, today, about AIAA. Not only will you help AIAA grow, you will receive a \$5 bonus.

We are also offering a <u>Special \$10 Discount</u> for members that join at any of our section meetings. The new member just fills out the membership application form but crosses out the full amount and replaces it with \$10 less with the notation, "Joined at Delaware Section meeting on <u>(enter date)</u>" and has it certified by (Section Officer's name and position). The application must be then submitted to AIAA National.

If you know a <u>Young Aerospace Professional</u> in the first five years of professional practice, AIAA will cut their first year's dues in half! After the first year, regular membership rate applies. They cannot have been a member or student member previously. To apply, they will need to call customer service at 800-639-2422 and talk to them directly – it can't be done online.

AIAA also offers <u>Free Educator Associate Memberships</u> for educators in grades Kindergarten through 12 that are interested in the development and application of science, mathematics, and technology for their educational curriculum. To recommend a friend or colleague as an Educator Associate, contact Dave Rosenberg for an application.

<u>Membership Upgrades - To request membership upgrade information or nomination forms, contact Dave Rosenberg, go to AIAA customer service at 800/639-AIAA or 703/264-7500 or visit the AIAA Web site at: http://www.aiaa.org. See the following link for more information: http://www.aiaa.org/content.cfm?pageid=183</u>

<u>Student Upgrades</u> Any student who is a member of AIAA in good standing at the time of graduation will automatically receive one free year of professional membership and the second year at half price

DASEF MILITARY FAMILY ROCKET DAY

The Delaware Aerospace Education Foundation (DASEF) hosts an event each year where students in grades K-12 build their own model rockets and launch them. This event is a hands-on learning program, developed by DASEF, which seeks to educate children on the importance of science and technology and stimulate academic interest and public awareness in engineering, math, technology, space, and environmental sciences, a goal it shares with AIAA. This year, on May 4th, 2013, the event focused on military families and their children. Students of all ages arrived at DASEF's site in Smyrna, DE to get their chance to build and launch their very own model rocket. The AIAA Delaware Section sponsored this year's event by providing DASEF a grant to purchase the model rocket kits.

The day began with the short presentations given by ATK and AIAA. Taylor Donaldson, AIAA DE Section Education Chair, gave a short presentation on AIAA and the aerospace industry geared for parents and students alike. Anthony LoRusso, ATK, Systems Engineer, gave a presentation titled "How Solid Rocket Motors Work", affording the students a tangible example of the work performed in the aerospace industry.

The students showed genuine interest in the topic and all of its various applications, the space shuttle and future Space Launch System in particular, and the parents were pleased to hear about the opportunities that AIAA can provide for students interested in the aerospace field.

After this introduction to rockets and the aerospace industry, everyone moved inside to start the model rocket assembly activity. The students and their parents were able to collaborate on their rockets as DASEF volunteers guided them through the assembly process. One by one, the rockets were assembled with the motors installed last to prepare for launch. Younger students had the opportunity to decorate canister rockets whose primary means of propulsion was water and a tablet of Alka-Seltzer. During the rocket building activity, DASEF also provided the children an opportunity to look at the sun and its sunspots through a large, filtered telescope, thrilling all who peered into it.

Once all the rockets were complete, the students gathered outside to launch their rockets in groups of six from the DASEF specially built launch pad. Those students who were not immediately launching their rockets were able to track the launch of their fellow student's rockets and retrieve them after flight. A few adventurous participants changed the configuration of their fins to see how that would affect the flight of the rocket. Many rockets were successfully launched to heights of 100 feet or so, others tracked unusual flight paths, some plummeted to the ground after failure of the parachute, and a few of the rockets suffered a hang-fire. Fortunately, none found any RETs (rocket eating trees) that the DASEF volunteers had warned them about.

The event was an unqualified success, providing a hands-on opportunity for children of military families to learn about the aerospace industry and pique interest in STEM education. All of the parents were extremely pleased to watch their children take a true interest science and technology, and the student enthusiasm was evident as they charged into the field for their opportunity to watch something they created launch into the sky. This event clearly nurtured interest in the science, technology, math and engineering fields and hopefully inspired some to pursue our industry further!

The Delaware Aerospace Education Department provides high quality, aerospace educational programs and outreach science/math/technology activities to K-12 students throughout Delaware. These activities provide highly motivating and interdisciplinary opportunities for students to learn about science-based life skills and non-traditional career choices. DASEF is a non-profit organization that conducts the summer Delaware Aerospace Academies and other AeroTech educational support programs and outreach that serve as a framework for educating, exciting and motivating students. For more information on DASEF and Rockets for Schools, please visit http://www.dasef.org.

AIAA is the world's largest technical society dedicated to the global aerospace profession. With more than 35,000 individual members worldwide, and 100 corporate members, AIAA brings together industry, academia, and government to advance engineering and science in aviation, space, and defense. For more information, visit www.aiaa.org.



TAYLOR, ANTHONY AND DR. WRIGHT EXPLAIN THE AEROSPACE INDUSTRY, SOLID ROCKETS AND ALL THE OPPORTUNITIES DASEF OFFERS



ALL THE PARTICIPANTS FOCUSING AND ENJOYING THE ROCKET ASSEMBLY



THREE, TWO, ONE, LAUNCH!

CECIL COUNTY 8TH GRADE CAREER BLAST

March 20th and 21st was the Cecil County 8th grade career blast. The Career Blast was an interactive expo for all eighth grade students in Cecil County, Maryland with the purpose of introducing them to the variety of careers available. The careers were divided into five different tracks: Business, Health Care, Performing/Visual Arts, Public Service and Science, Technology, Engineering, and Mathematics (STEM). The AIAA-Delaware Section presented "Rocket Engineering" as part of the STEM track. Approximately 100 students from 6 middle schools visited the Rocket Engineering session over the course of the day and a half. Breanne Wooten, the AIAA-Delaware Section STEM officer, talked to the students for a few minutes about the education and skills required for a career in engineering. The students then made their own straw rockets and attempted to reach a goal range. The activity demonstrated various challenges that engineers have to deal with on a daily basis: constrained resources, deadlines, and meeting customer goals as well as the engineering cycle of designing, testing, and using test data to improve the design. After the first day of activities, one of the coordinators for the event said that the Rocket Engineering activities was definitely a crowd favorite.





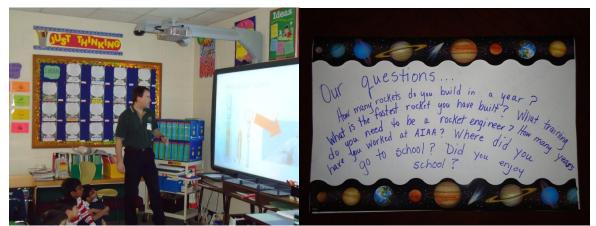
Photos: (Left) Students launch their designs. (Right) Breanne loads the next design on the launch rail

BOHEMIA MANOR MIDDLE SCHOOL 8TH GRADE CAREER DAY

The AIAA Delaware Section STEM Coordinator Breanne Wooten attended Bohemia Manor Middle School's career day on May 8th, 2013. Breanne was the only representative for the field of engineering. Four groups of 10-15 8th graders rotated through the engineering workshop in the morning. The students were treated to a viewing of NASA Johnson Style as well as some quotes from Dr. Sheldon Cooper from the Big Bang theory on engineering. Breanne explained to the students her path to becoming an engineer including her experiences at various internships and while at Purdue University. She described a few of the programs she has worked on while at ATK and the various positions she has held. Lastly, she explained what the students can be doing now and in high school to prepare themselves for a career in engineering. One of the most surprising observations from the morning was the amount of female students in the engineering seminar – far more than attended last year. The students really enjoyed the videos and had some great questions. It was pretty clear by some of their reactions that a few Bo Manor students are seriously considering a career in engineering.

INDEPENDENCE SCHOOL VISIT

The AIAA Delaware section supported a recent career day trip by ATK employee Jack Pachalis to his daughter's 4th grade class at The Independence School in Newark, DE. The fourth grade students had been visited by parents throughout the year when their career was relevant to the current topic being studied. Jack's career day fell during the student's unit on space and the solar system. 50 students and their three teachers attended the talk about what it is like to be an engineer and work on rockets. Jack started his presentation with the extremely popular NASA Johnson Style video and a quick rocket history lesson. He explained the basics of how a solid rocket motor works and the skills needed to be a good engineer, tying the skills to lessons the students have learned, such as the importance of documenting findings. Jack discussed a few of his favorite programs and showed videos of static fires at ATK. The students asked many questions – so many that Jack did not have time to answer them all!



Jack explaining the Orion Launch Abort System (left); Questions the students had for Jack (right)

ESHLEMAN SCHOOL VISIT

The AIAA Delaware Section supported a Friday, May 24th visit to Eshleman Elementary School by ATK employee Amadi Ramos. Amadi was invited to speak after his nephew mentioned that he has a relative that designs rocket motors. Amadi explained to the 40 6th grade students what an engineer is and how a rocket motor works. He also spoke with them about his experiences in aerospace engineering, the skills necessary to be an engineer and the importance of education.



Amadi explaining how he became an engineer (left); Amadi explaining solid rocket combustion basics (right)

The Delaware Section thanks Jack and Amadi for their presentations to local K-12 students!

AIAA PUBLIC POLICY COMMITTEE SOLICITS INPUT FOR 2014 CVD KEY ISSUES

The AIAA Public Policy Committee (PPC) is now soliciting your input for its 2014 Congressional Visits Day (CVD) key issues under the themes/subcommittee focus of: Space, Aeronautics, STEM Education & Workforce Development, and National Security. This opportunity is available to all members within AIAA. If you've ever wondered if AIAA is addressing the most pressing and relevant issues within the industry, now is your chance to contribute and participate in the process. Input should consist of issue title/name, brief background, and at least one proposed recommendation. Also, the issues must avoid focusing on specific local or corporate concerns and instead should reflect a consensus of the entire Institute. Please send your input to AIAA Region I Deputy Director for Public Policy, Tim Dominick (timothy.dominick@atk.com) for submission to the PPC. Deadline for input is August 1, 2013.