



Published by and for the members of the  
AIAA Delaware Section

March 2018

Shaping the Future of Aerospace

Delaware Section

**FLIER**

**Message from the Chair:**

Delaware Section Members –

In the month of March, the Delaware Section’s primary major event was Congressional Visits Day on March 21st. Two section members, David Fox and Timothy Dominick, braved the winter storm Toby to speak with congressional offices from Delaware, Maryland, and Maine about the AIAA Key Issues. Details of Congressional Visits Day can be found in this month’s newsletter. This month’s Lunch and Learn was a viewing of Friends and Rivals from the When We Left Earth: The NASA Missions series. Next month, we hope to have a presentation from the University of Delaware Aero SAE team discussing their design, build, and test project.

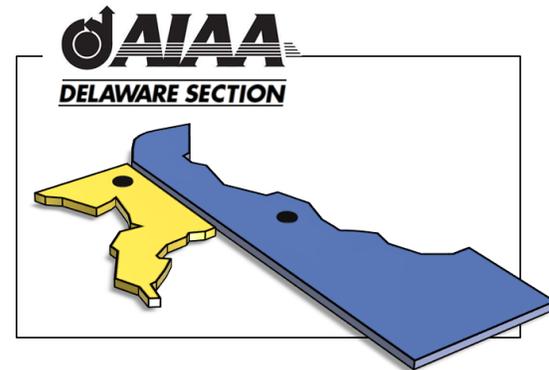
This is the time of the year for Section officer elections (Chair, Vice, Chair, Secretary, and Treasurer), petitions to add a name to the ballot must be submitted to current Secretary Ian Beringer by April 30th with three AIAA Delaware Section Member signatures. Voting will occur in May, look for details in the April newsletter – only professional members are eligible to vote.

As always, I’d like to remind our members that the council is here to serve the desires of the Delaware section. If there is any type of event or activity you would like to see, please don’t hesitate to reach out to us via the section website at <https://info.aiaa.org/Regions/NE/Del/default.aspx>

Clear skies!  
David Fox  
Chair, Delaware Section

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Have you visited AIAA Engage yet?



AIAA Engage

## *Around AIAA, Industry, and Our Section*

### **Delaware Section Members Attend AIAA Congressional Visits Day**

Delaware Section Council members David Fox (Chair) and Tim Dominick (Public Policy Chair) braved winter storm Toby and attended the AIAA Congressional Visits Day (CVD) in Washington DC on March 21, 2018. Team Delaware joined with members from the National Capitol and New England sections to visit House and Senate offices of Representatives and Senators throughout AIAA Region 1. These included the offices of Representatives Lisa Blunt Rochester (DE), Bill Poliquin (ME), and Andy Harris (MD) and Senators Chris Van Hollen (MD), Ben Cardin (MD), Tom Carper (DE), Susan Collins (ME), and Angus King (ME). The 2018 key issues that were identified by AIAA as critical to the future of aeronautics and astronautics and discussed with the various offices included the following:

- Providing stable funding and long-term policy direction in order to meet program and mission requirements
- Investing in research and development
- Developing and enhancing the workforce pipeline

Details on the AIAA 2018 key issues can be found at <http://www.aiaa.org/KeyIssues/>. The issue most captivating to Congressional offices this year was linked to stable funding and related long-term policy direction. For several years, many of the offices visited have been aware of the negative impacts of longstanding sequestration and continuing lack of multi-year authorizations to the Aerospace industry; however, there appeared to be an increased motivation by Member offices to address these issues this year. Team Delaware was also able to provide examples of how the budget in-fighting in Congress is affecting local businesses within their districts. Overall, the entire slate of AIAA public policy issues was given a warm hearing by all Congressional offices and there was sincere interest in the issues that are currently plaguing our industry.



Team Delaware with John Mitchell from Senator Chris Van Hollen's (MD) Office



**Team Delaware with Andrew Shine from Senator Carper’s (DE) Office (left), Ian Spears from Representative Lisa Blunt-Rochester’s (DE-At Large) Office (middle), and Time Daniels from Representative Andy Harris’ (MD-1) Office (right).**



**Team Delaware with John-Paul Mantone from Senator Susan Collins’ (ME) Office and enjoying winter storm Toby while canvassing the Hill for CVD**

## *Around AIAA, Industry, and Our Section*

### **Delaware Section Member Honored at NMTC Visionary Awards Gala**

Delaware Section Public Policy Chair, Tim Dominick, was honored by the Academy of Visionary Awards for his work in advancing innovation and technology in the aerospace industry. The award was presented at the Northeastern Maryland Technology Council (NMTC) Visionary Awards Celebration on February 22.



DE Section Public Policy Chair, Tim Dominick (right) receives his Visionary Award from John Casner, Executive Director of the NMTC (Photo Credit: Matt Ryb Photography)

Tim was among 15 individuals honored at the event where more than 250 leaders in industry, government and academia gathered to pay tribute to their work. Award recipients were selected in five categories: Visionary, Leader, Innovator, Mentor and Rising Star. Tim was recognized with the Leader Award that acknowledges steadfast, consistent contribution to building our STEM-educated workforce and advancing technology & innovation in a public way while inspiring to help in accomplishing shared goals.

“The Visionary Award is a prestigious honor bestowed on those people who are instrumental in moving our region forward in STEM-education and technology,” said Michael Parker, NMTC Board Chair. “We want to encourage continued focus on research and technology development that will keep our region on track toward economic strength and innovation.”

In its seventh year, the Academy of Visionary Awards has recognized exceptional workers who have demonstrated a commitment to the research and development goals of the region. Academy membership is approaching 100 inductees with the inclusion of this year’s group. “These innovative professionals contribute their time and talent to advancing technology, sharing their knowledge and wisdom and inspiring others to do the same so that our region can continue to grow. They are role models in their workplaces and in their communities, and we are delighted to recognize them with this award,” said John Casner, executive director of NMTC.

## Dream Big Film Screening at Cecil County Public Library

To close out National Engineer’s Week, the Delaware Section partnered with the Cecil County Public Library (CCPL) Elkton Branch and Orbital ATK to host a special screening of the film Dream Big. Originally in IMAX, Dream Big is an awe-inspiring film celebrating the innovation and creativity of engineers who are transforming the world, from underwater robots to the tallest skyscrapers. Following the film screening, engineers from the Delaware Section and Orbital ATK participated in a Q&A with the audience answering questions on the film and engineering careers in general. After the Q&A, audience members participated in a family engineering activity to build marshmallow landers with a shock absorbing system to protect “astronauts” when they land. Throughout the build and test process of the activity, participants learned about and executed the engineering design process. Overall 82 people attended the event, with many of them K-8 students. With the success of this event, look out for more joint events in the future with CCPL.



## ***Motor of the Month - STAR™ 37E***

- On March 2, 1972, an Atlas Centaur launched carrying Pioneer 10. Pioneer 10, powered by a Thiokol Elkton STAR 37E, became the first spacecraft to encounter Jupiter, in 1973. In 1983, Pioneer 10 became the first spacecraft to leave the Solar System.
- The STAR™ 37E is part of a the large Thiokol STAR™ motor family, used almost exclusively for upper stage propulsion
- The STAR™ 37E was the precursor to Orbital ATK Elkton's current STAR™ 37FM motor, and has been retired



### **STAR™ 37E Motor Specifications**

- Solid Propellant weight = 2,290 lb<sub>m</sub>
- Total Motor Weight = 2,475 lb<sub>m</sub>
- Specific Impulse = 284 sec
- Average Thrust = 15,240 lb<sub>f</sub>
- Propellant: AP/HTPB

### ***Public Policy in Action***

As the world's largest aerospace professional society, AIAA plays a key role in the national public policy debate. This section highlights current policy issues of importance to the Aerospace community.

#### **Three STEM-Related Bills Passed by House**

The House of Representatives, on 19 December, approved three bills that further STEM education and careers in STEM fields. Descriptions of the bills are below. Companion legislation has not yet been introduced in the Senate.

- *STEM Research and Education Effectiveness and Transparency Act* ([H.R. 4375](#)) – Provides for a report on the effectiveness of NSF research and education programs aimed at broadening participation in STEM fields and requires more data on federal research grant application evaluations and outcomes from all science agencies.
- *Supporting Veterans in STEM Careers Act* ([H.R. 4323](#)) – Promotes veterans' involvement in STEM education, computer science, and scientific research and employment.
- *Women in Aerospace Education Act* ([H.R. 4254](#)) – Amends the NSF Authorization Act to strengthen the aerospace workforce pipeline for women through the Robert Noyce Teacher Scholarship Program, NASA internship and fellowship opportunities, and by providing fellows and scholars research and intern experience at national labs and NASA centers.

#### **Trump Administration Seeks to End Work Eligibility for Spouses of H-1B Holders**

The Department of Homeland Security recently issued a notice that would end a program that has benefited foreign couples where one individual is working in the United States on an H-1B visa. Those spouses are able to live and work in the United States through the issuance of an H-4 visa. What's more, the Trump administration is more closely scrutinizing applications for the high-skilled visa program known as H-1B. U.S. Citizenship and Immigration Services actually suspended premium processing of H-1B visas earlier in 2017, which allowed for fast-track consideration to those who paid an extra fee. This option was not resumed until October 2017, meaning many workers who qualified for the visa had to wait months for a decision. AIAA has called on Congress to pass visa legislation that encourages the retention of foreign professional STEM workers in U.S. industry.

## 2017-2018 Council Members

<p>Chair David Fox, Orbital ATK; (410) 392-1346 <a href="mailto:David.Fox@OrbitalATK.com">David.Fox@OrbitalATK.com</a></p>
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<p>Programs Entire Council <a href="mailto:Breanne.Sutton@OrbitalATK.com">Breanne.Sutton@OrbitalATK.com</a></p>
<p>RAC Representatives David Fox and Breanne Sutton</p>

## The AIAA Delaware Section

The Delaware Section is part of the American Institute of Aeronautics and Astronautics, the world's largest technical society dedicated to the global 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 Website

The AIAA Web site ([www.aiaa.org](http://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 Noah Gold, to obtain an application. Also, if you wish to be upgraded to Senior Member, Associate Fellow or Fellow, contact Breanne 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 Preswold Place, McLean, VA 22102.

### Have You Checked out the AIAA Journal?

AIAA's journals are the best resource for students and professionals who want to stay current on the latest aerospace research and development. Reporting on the most important aerospace advances, AIAA's seven active technical journals feature original research papers spanning the spectrum of aerospace science and technology. They include methods of analysis, technical knowledge, exploratory development, and new applications. There are over 50 years of archives stretching back to the times of the American Interplanetary Society, predecessor to the American Rocket Society. We have provided a link below and hope you take some time to browse all the great information available to you. <http://www.aiaa.org/journals/>

Category of Membership	2016–2017
Associate Member, Member, and Senior Member Retired/ Return to Full-Time Study / Spouse / Unemployed (50% of member dues)	<b>\$120</b> \$60.00
Associate Fellow Retired / Return to Full-Time Study / Spouse /Unemployed (50% of Associate Fellow dues)	<b>\$131</b> \$65.50
Fellow Retired / Return to Full-Time Study / Spouse / Unemployed (at 50% of Fellow dues)	<b>\$153</b> \$76.50
Full Time Student	\$25.00
Student to Professional Transition*	
2 <sup>nd</sup> year	\$30
3 <sup>rd</sup> year	\$60
4 <sup>th</sup> year - full member rate	\$90

## AIAA DE Section Member Numbers

<b>Professional Members</b>	<b>52</b>
• <b>Members</b>	<b>16</b>
• <b>Senior Members</b>	<b>25</b>
• <b>Associate Fellows</b>	<b>9</b>
• <b>Fellows</b>	<b>2</b>
<b>Educator Associates</b>	<b>40</b>
<b>Student Members</b>	<b>9</b>

If you know a [Young Aerospace Professional](#) 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 cannot be done online.

AIAA also offers [Free Educator Associate Memberships](#) 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 Breanne Sutton for an application.

[Membership Upgrades](#) - To request membership upgrade information or nomination forms, contact Breanne Sutton or 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>

[Student Upgrades](#) - 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

## 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](http://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:



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