

# Heading for New Horizons

AIAA ANNUAL REPORT 2015–2016



# Heading for New Horizons

The American Institute of Aeronautics and Astronautics (AIAA) is more than 30,000 engineers and scientists from 88 countries dedicated to the global aerospace profession. AIAA convenes five yearly forums; publishes books, technical journals, and *Aerospace America*; hosts a collection of 150,000 technical papers; develops and maintains standards; honors and celebrates achievement; and advocates on policy issues. AIAA serves aerospace professionals around the world—who are shaping the future of aerospace—by providing the tools, insights, and collaborative exchanges to advance the state of the art in engineering and science for aviation, space, and defense.



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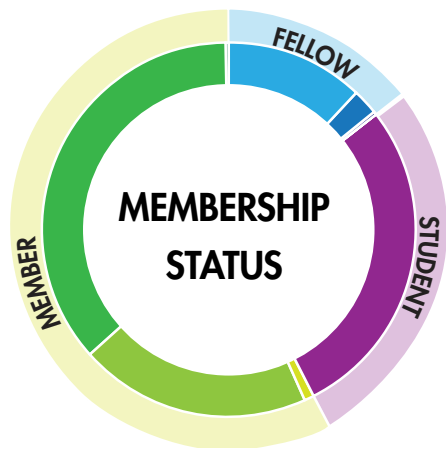
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## Click Here to Access AIAA Foundation Impact Report

This year the AIAA Foundation has a separate report with financial information called the AIAA Foundation Impact Report. You may access the AIAA Foundation Impact Report PDF online at <http://www.aiaafoundation.org/impactreport/>.

# A Snapshot of AIAA

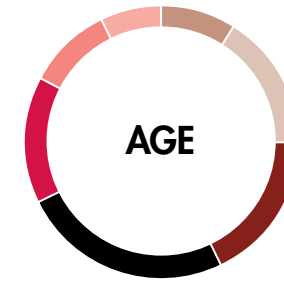
## Who We Are



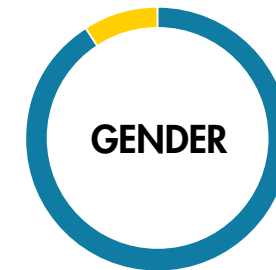
3,786	ASSOCIATE FELLOWS
721	FELLOWS
65	HONORARY FELLOWS
8,828	STUDENT MEMBERS
293	ASSOCIATE MEMBERS
6,316	MEMBERS
11,537	SENIOR MEMBERS
6	HONORARY MEMBERS
<b>31,552</b>	<b>TOTAL MEMBERSHIP</b>



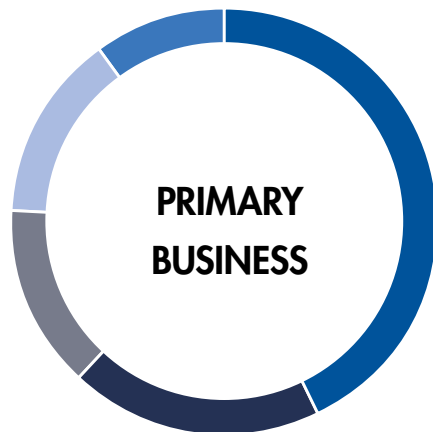
9%	ENGINEERING AND TECHNOLOGY MANAGEMENT
29%	AEROSPACE SCIENCES
12%	AIRCRAFT AND ATMOSPHERIC SYSTEMS
5%	INFORMATION SYSTEMS
11%	PROPULSION AND ENERGY
15%	SPACE AND MISSILES
9%	AEROSPACE DESIGN AND STRUCTURES
10%	NOT SPECIFIED



7%	20-29
17%	30-39
17%	40-49
26%	50-59
15%	60-69
10%	70-79
8%	80+



90%	MALE
10%	FEMALE



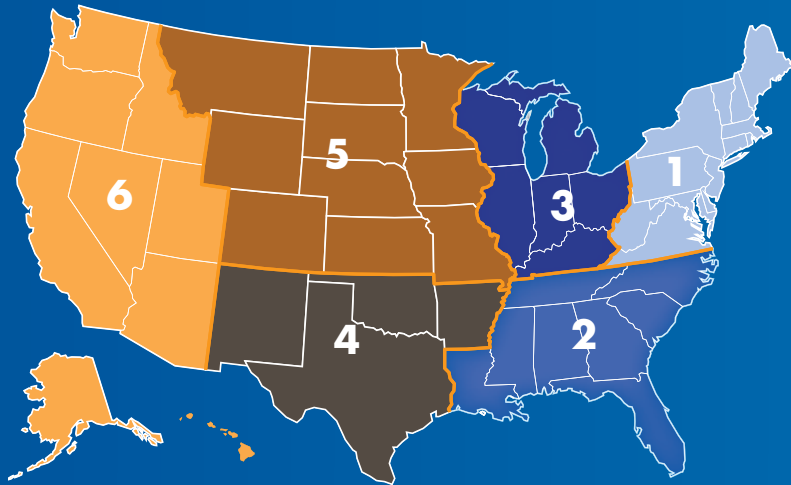
43%	INDUSTRY
20%	GOVERNMENT
15%	ACADEMIA
14%	RETIRED
8%	NOT SPECIFIED

## Financial Information 2013–2015 (in thousands U.S. \$)

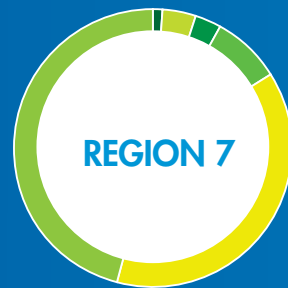
	Institute Total Assets	Institute Revenue	Institute Net Assets
<b>2013</b>	38,151	22,116	26,789
<b>2014</b>	38,770	22,030	31,426
<b>2015</b>	37,665	20,247	29,772

# A Snapshot of AIAA

## Where We Are



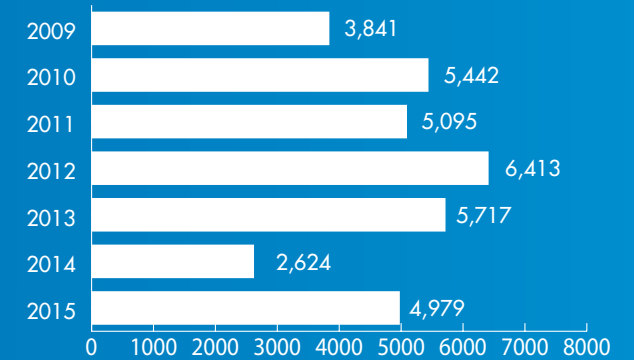
24%	REGION 1 (NORTHEAST)
11%	REGION 2 (SOUTHEAST)
8%	REGION 3 (CENTRAL)
8%	REGION 4 (SOUTH CENTRAL)
7%	REGION 5 (MID WEST)
24%	REGION 6 (WEST)
18%	REGION 7 (OUTSIDE U.S.)



46%	EUROPE
38%	ASIA AND PACIFIC
8%	CANADA AND MEXICO
3%	CENTRAL AND SOUTH AMERICA
4%	MIDDLE EAST AND NORTH AFRICA
1%	AFRICA

## Media Highlights

### Media Mentions of the Institute



### AIAA's Growing Social Media Footprint

#### Facebook Fans

Apr 2014	22,392
Apr 2016	44,626

#### Twitter Followers

Apr 2013	3,800
Apr 2016	13,000

- AIAA communicates with a broad audience on Facebook and Twitter. AIAA has doubled its fanbase on Facebook since April 2014.

#### LinkedIn Page Followers

Apr 2015	6,248
Apr 2016	7,954

#### LinkedIn Group Members

Jan 2013	4,942
Dec 2014	7,264
Apr 2016	12,411

- AIAA is active on LinkedIn with a page containing content from the Institute and a discussion group with contributions from members, including a dedicated Diversity Working Group page.

#### Instagram

Apr 2015	N/A
Apr 2016	701

- Instagram is the newest platform on which the Institute has become active, and it is primarily used to communicate with student branches that post photos of their activities for the AIAA Headquarters account to share.



James F. Albaugh

## President's Report

Two years have gone by quickly and I am now writing to you for the last time as President of AIAA. The past two years have been busy ones for the Institute as we've laid out a new vision for our governance, advocated for the importance of aerospace to our nation and world, instituted our new forum format, increased AIAA's value to the community, and strengthened the Institute's financial health.

Many of us on the Board felt strongly that it was important to change AIAA's governance structure. Designed in 1963, our system of governance met the needs of two organizations that were becoming one. However, more than 50 years later that system has stayed static rather than evolving to keep pace with the changes in our industry. This has often inhibited the Institute from adapting quickly to meet your changing needs and hindered our ability to develop new offerings for you. Almost two years ago the Board of Directors created a Governance Working Group to propose recommendations for a new system of governance of the Institute. You began voting on that new system in March. The election is now finished and I am very happy to report that the membership has voted to approve the new Constitution. During the eight weeks of the election more than 4,400 votes were cast—which is an impressive 20.65%, more than the 15% constitutionally required. The membership voted to accept the proposed Constitution change by a margin of 91.8% in favor and 8.2% against. That is obviously more than the required 2/3 of votes needed to approve the proposed changes.

This ushers in a new era for AIAA, allowing us to be more nimble and responsive to changes in our industry and community—thereby serving you better. But the vote was just the beginning and change will not come overnight. We still have much work to do to implement change. The transition will begin at the June Board of Directors' meeting when the Board votes to formally adopt the Bylaws and a transition plan. The transition will take place over the next two to three years. The new governance system strives to encourage and promote engagement from the membership. Consequently, as we work through the transition, we will be looking for help

and input from the membership as policies, procedures and processes are created and documented.

No matter how you voted, thank you for taking the time to vote. Voting in elections is the most important right you have as a member. We are the sum of your decisions; we rely on your guidance and thoughts to continue to mold a strong Institute that is responsive to the needs of its members.

The governance project is only one area where AIAA has been busy during the past two years. Aerospace is an important engine for our national economy, generating \$1.5 trillion dollars per year in economic activity and creating nearly 11 million jobs. And the industry creates the technology and systems that brings the world closer together, decreasing natural barriers to trade and enhancing cultural ties. However, shortsighted policies and unstable federal budgets create an unpredictable future for our industry, driving AIAA to continue to advocate for aerospace every day. It is critical to participate in public policy initiatives and engage our lawmakers, this will be important to sustaining our industry's success—we must never fail to remind them of the key role that aerospace plays. This focus on policy is especially critical because we live in a world where other nations are placing greater priorities on their aerospace and defense budgets, and lessening cumbersome restrictions on them. It is important that each of us becomes an "every day" champion for aerospace and I hope you will become—or continue to be—just that going forward.

Because aerospace innovation depends on collaboration, one of the things I am most proud of is the implementation and success of the AIAA forums. These events offer robust plenary and Forum 360 sessions that dive deeper into the issues facing our community, while also offering an expanded technical program. AIAA forums bring the aerospace community together, and there is a greater diversity in attendance and participation by a larger number of students and young professionals. The feedback indicates that attendees are excited about the increased opportunities for collaboration at the forums. AIAA SciTech 2016 in San Diego highlighted

the success of the forum model, attracting over 4,000 attendees from around the world, approximately 1,000 of them students—an AIAA forum attendance record. The Institute will continue to develop and fine-tune the forum model, including new and dynamic topics of conversation, more relevant programming for young and mid-career professionals, and even more networking and collaboration opportunities.

To remain strong, AIAA must remain relevant. To that end, we are incorporating emerging topics or technologies such as autonomy, advanced manufacturing, commercial space, cybersecurity, and hybrid aircraft into our forum offerings and advocacy programs. The Board is committed to building an AIAA that will continuously evolve and that will address the key issues of the day affecting our profession. I firmly believe that AIAA's greatest asset is its ability to bring the community together to facilitate the conversations and collaborations necessary to advance the state of the art, and this is a vital role we will continue to play as long as the Institute exists.

If our greatest strength is our ability to inspire collaboration and conversation, then the pillar of that strength is its membership. I am honored and privileged that you allowed me to lead the Institute. As my term ends, I believe that AIAA is a much different organization than it was when I arrived and that is the result of a lot of hard work on everyone's part. I am mindful of, and thankful for, all of the contributions each of you make for the success of AIAA. Your dedication to the Institute, your time spent contributing to our forums, journals, and other programming, and your insight into the changing trends in the industry are what drive AIAA. I have enjoyed meeting you over the past two years at our forums, and hearing your ideas on how to continue to grow AIAA. Your input has been important to me. I hope that you will continue to support AIAA and that your enthusiasm for our mission and purpose will help keep AIAA strong and relevant for many years to come. Thank you.



Sandy Magnus

## Executive Director's Report

It has been another action-packed year for the Institute! We have been working hard on the governance project, the details of which I will not delve into as both Jim Albaugh and Jim Maser address this topic in their reports. Instead I would like to highlight some of the other great activities that have taken place across the Institute and our community during the past year.

Financially, AIAA remains in a strong position. The adjustments we made in the 2013–2014 time frame, coupled with strategic moves such as the implementation of the forums, identification of growth opportunities, and streamlining operations, set the stage for the success we have seen both last year and this year. We will continue to build on this momentum.

The Board and the Institute Development Committee have examined a number of other potential areas where AIAA should engage, and in the past year we have been working to develop those programs. Planning and groundwork executed this year will benefit us all as new events and new offerings are rolled out over the summer and into early 2017. Areas identified include: autonomy, the impact of advanced manufacturing on the aerospace industry, cybersecurity, and commercial of space. Another technical topic of interest that is taking shape is hybrid-electric aircraft.

We also have been tireless in our public policy efforts this past year. We continue to engage and support our members at the state as well as the federal level with various outreach activities. In addition we worked collaboratively with many different groups on a range of issues facing the industry including open access publishing, government employee travel for conferences, workforce issues, the importance of a stable space program and the importance of NASA-funded aeronautics research.

Our student membership continues to grow—by nearly 1,000 members in the last 12 months—and we are working to provide them with additional programs and opportunities to engage more with the Institute as well as opportunities for them to start building their professional networks. To that end, each forum contains student-specific programming, such as a student reception at the beginning of the forum, speed mentoring where students have the opportunity to interact with experienced industry members, and special panels targeted at career and workforce issues. We have been getting very positive feedback from our students and will continue to look for ways for them to engage with the broader Institute. Our Foundation's Design/Build/Fly Competition turned 20 this year and had a record number of entrants. Kudos to our technical communities, sponsors, and volunteers who work so hard every year to execute such a successful educational experience for our undergraduate students!

Our Regions and Sections have continued to be active and engaged, hosting hundreds of programs and outreach events. As in years past I was excited to have the opportunity to visit 22 sections or student branches in 18 states. I also spent more than two weeks in Australia, visiting sections and student branches in Sydney, Canberra, Brisbane, Adelaide, and Melbourne. I look forward to visiting more sections this year!

AIAA, working with the Air Traffic Control Association, assumed publication of *Air Traffic Control Quarterly*, renaming it the *Journal of Air Transportation*, starting with Vol. 24, No. 1 in January 2016. This brings our peer-reviewed journal portfolio to eight titles. AIAA also has been engaged in the continuing discussions around open access publishing relating to policy and the implications for scholarly publishers. This topic will continue to be an important one in the coming year. In addition we kicked off an effort to bring *Aerospace America* into the digital world more fully as well as update the magazine's print design. Those efforts are

bearing fruit and members will see those changes in your mailbox or on your screen in the near future.

The AIAA Foundation celebrates its 20th anniversary this year and we have made it a priority to reignite and reinvigorate it! We appointed a full-time development director and a program coordinator who are working hard to raise funds and produce engaging educational programs for the next generation of aerospace professionals. As part of those efforts the AIAA Foundation, for the first time, is publishing a separate Impact Report that can be downloaded from the Foundation's website: <http://www.aiaafoundation.org/ImpactReport/>. I encourage you to check out all the amazing things the Foundation is doing and, if you are able, make a donation!

Finally in November we relocated AIAA Headquarters to a new building with an open office environment and more meeting space. Our new office is still located in Reston just a few miles from our previous one and will be situated on the Silver Line Metro when it expands to Dulles International Airport in 2020. Our new space was specially designed to include a meeting space that can be made available to our members when they are in town. Please stop by when you are in the Washington, D.C., area!

This coming year looks just as exciting. We are continuing to experiment with new programming, looking forward to implementing the governance changes, and creating more engagement opportunities especially for our students and young and mid-career professionals. Open access will come front and center as we try to understand how AIAA needs to evolve to comply with new paradigms in publishing. We will stay busy.

Thanks, everyone, for your time and commitment to AIAA!

# Serving the Profession: Our Members



## Honors and Awards

■ Left: Dr. Ramesh Agarwal, recipient of the 2015 AIAA Reed Aeronautics Award.

■ Above: AIAA Class of 2015 Fellows and Honorary Fellows.

For over 80 years, AIAA has been committed to ensuring that aerospace professionals are recognized and celebrated for their achievements, innovations, and discoveries that make the world safer, more connected, more accessible, and more prosperous. From the major missions that reimagine how our nation utilizes air and space to the inventive new applications that enhance everyday living, aerospace professionals leverage their knowledge for the benefit of society. AIAA continues to celebrate that pioneering spirit showcasing the very best in the aerospace industry.

Over the past year, awardees and honorees received peer recognition at forum recognition luncheons and recognition events such as the annual AIAA Fellows Dinner, the black-tie Aerospace Spotlight Awards Gala, and events hosted with other technical societies.

- 290 awardees were recognized for their accomplishments
- 650 members were named Honorary Fellow, Fellow, Associate Fellow, or Senior Member
- Nearly 80 AIAA members were advanced to “Emeritus” status in appreciation of their 50 continuous years of membership
- 46 technical papers were designated as “Best Paper” by the respective technical committee
- 37 AIAA sections were recognized for overall excellence, effective communications, member recruitment, and successful programming

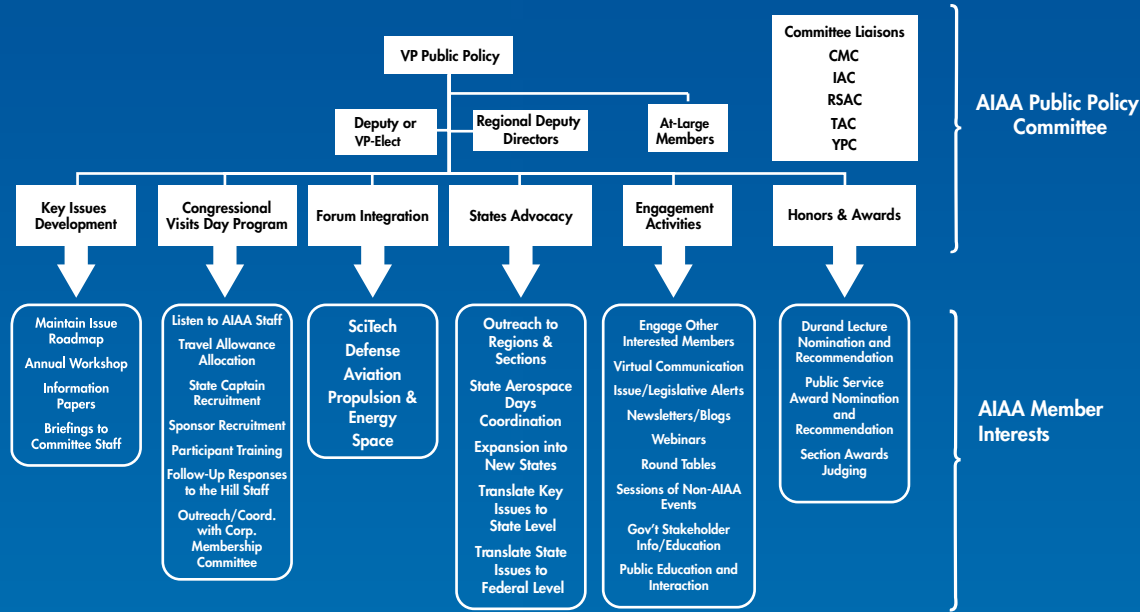
Responding to recent survey feedback, AIAA Honors and Awards expanded its awards promotion plan to include targeted direct announcements sent to the honorees’ supervisor or CEO, to their professional contacts and alma maters, as well as through social media channels and other new and traditional media outlets. This promotion has allowed us to acknowledge our awardees/honorees on an individual level to a wider peer audience.

Looking forward, AIAA remains committed to celebrating achievements of aerospace professionals and will implement creative ways to using technology to showcase honorees.



# Celebrating Achievements Throughout 2015





## Public Policy

### Public Policy Committee Gets A New Look

The Institute's Public Policy Committee (PPC) underwent a major overhaul in 2015 to become more efficient, more relevant, and better positioned for the future. This was necessary because the previous structure consisted of roughly 70 members with varying levels of participation, making it quite cumbersome to make decisions without clear levels of decision-making responsibility. The change enables our members to support the Institute's public policy objectives throughout the year and to be everyday advocates.

The new committee has been organized into six outcome-based working groups, each led by two co-chairs. The working groups will focus on Key Issue Development, the Congressional Visits Day Program, Forum Integration, States Advocacy, Engagement Activities, and Honors and Awards. Any interested AIAA member can join one or more of these working groups at a variety of levels and as their ability to participate waxes and wanes.

Committee membership is now capped at 22 voting members, and all new members must be nominated by the Vice President of Public Policy and appointed by the AIAA President. The membership includes the Vice President of Public Policy, the Vice President-Elect or Deputy (if there is one), the twelve working group co-chairs, and the six Regional Deputy Directors of Public Policy. There are also "at-large" positions that have voting privileges. The number of those "at-large" positions will vary if any member is both a regional deputy director and a working group co-chair. Working group members and standing committee liaisons do not have voting privileges.

From Key Issue development to our annual Congressional Visits Day Program to fostering forum topics, advocating at the state level, and selecting deserving recipients of our honors and awards, the Public Policy Committee has a place for you. Your contributions will be relevant and important, and the experiences will provide unprecedented professional development and networking opportunities beyond the normal AIAA technical or program committees or section leadership.

### Promoting the Institute's Key Issues

Each year the PPC establishes public policy key issues that become the focal points of the Institute's engagement with congressional decision makers, the administration, and state and local officials. Our key issues provide the supporting pillars of the Congressional Visits Day program, drive panel sessions at our annual forums, underpin our state-level advocacy efforts, and form the basis of a number of smaller focused events and activities.

This is the second year of the PPC's new approach of promoting fewer, concise key issues that have clear asks of and actions for lawmakers. Building on the foundation laid in 2015, we are following a roadmap for policy development and advocacy to address the critical political issues that affect our members and the aerospace industry as a whole. The key issue areas that will help shape public policy in 2016 are 1) Aerospace & Defense (A&D) Budget Funding and Procurement, 2) A&D Competitiveness, and 3) A&D Workforce Enhancement.

The PPC is looking for input on key issues and asks members with policy issue ideas to submit them via the key issue webpage. Suggestions should be timely and pertinent to the entire aerospace community.



■ California state senators and aerospace industry representatives at AIAA's 5th annual California Aerospace Days.



■ Team California with Senator Barbara Boxer at CVD.

## Continued Interaction with Elected Officials

AIAA's 19<sup>th</sup> Annual Congressional Visits Day (CVD) program was held on 16 March 2016. CVD is an exciting and eye-opening event that brings together many of our members from all over the country for a day of advocacy on Capitol Hill. This year nearly 90 members from 22 different states attended the event. A large majority of the participants were student members representing the University of Central Florida, University of Cincinnati, Cleveland State University, Embry-Riddle Aeronautical University, Iowa State University, University of Michigan, Ohio State University, and Stanford University. The attendees, who were divided into state teams, visited approximately 160 congressional offices to help promote the Institute's key issues and raise awareness of the long-term value that science, engineering, and technology bring to the nation. Braven Leung, a university student pursuing doctoral studies in Aerospace Engineering at the Georgia Institute of Technology, shared that "I always enjoy coming out to the Hill and participating in the event." He continued, "Every time it is a unique experience and it's great being able to advocate policies important to our profession."

## A Resource for Congress

Through relationships developed over the years with various congressional committees and personal offices, AIAA is recognized as a reliable and valuable resource on aerospace-related matters. This positive recognition led the House Space Subcommittee to call on AIAA to provide a witness for their 22 June 2015 hearing that reviewed the FAA's Research, Engineering, and Development programs. Greg Hyslop, AIAA Senior Member, and vice president and general manager of Boeing Research & Technology, testified before the subcommittee and told members that "government must continue to promote innovation and competitiveness, strengthen our industrial base, level the playing field for U.S. companies and workers, and create a public infrastructure that is second to none."

Members of Congress have also reached out to AIAA over the past year seeking guidance and input on subject matter pertaining to several issues within the aerospace community, including the crafting of legislation benefiting aeronautics research and reforms to both civil and military space policies. These interactions serve to continually strengthen our bond and rapport with Congress.

## State-Level Engagement

For the fifth straight year AIAA has helped plan and host the California Aerospace Days event, which took place in Sacramento, 29 February–1 March 2016. A joint select committee hearing, networking reception, exhibition, and several educational briefings brought together state lawmakers and their staffs with members of

the California aerospace community to learn more about the importance of the aerospace industry to the state's economy, education system, manufacturing base, and workforce.

The Assembly Select Committee on Aerospace and the Senate Select Committee on Defense and Aerospace, held a hearing with notable female aerospace executives, including AIAA Executive Director Sandy Magnus, to explore the challenges and opportunities for women in STEM fields. Separately, lawmakers and staff members, as well as the public, were able to visit exhibits from three NASA centers, large aerospace companies, and suppliers—all based wholly or in part in California—which really helped illustrate the ways in which the aerospace community impacts the lives of Californians every day. The event also featured briefings on the breadth of the aerospace community in California, including how small businesses are transforming the aerospace sector, the challenges faced by aerospace suppliers statewide, how unmanned aerial vehicles will be integrated into the National Airspace System, and the release of an aerospace economic impact study encompassing eight Southern California counties. Dr. David Smith, 412th Test Wing Installation Support Director at Edwards Air Force Base, said the event "was a wonderful opportunity to highlight issues, concerns and emphasize the need for regular and persistent state interface with our mission at Edwards."

Georgia held the sixth annual Georgia Aerospace Legislative Breakfast on 9 February 2016, which brought together leaders from government and industry to discuss issues of importance to the continued growth of this key industry to the state. This year's theme was "No limits to success for Georgia's Aerospace Industry." The event was organized by the Georgia Aerospace Policy Working Group. This was AIAA's fourth year as the primary sponsor and officers from the Atlanta and Savannah Sections participated.

Florida held its annual Space Day on 3 February 2016, where industry leaders and aerospace supporters met with state officials to highlight the positive impact of the space industry on the state economy and to determine the best strategies for leveraging economic development policies to attract private sector investment and jobs. Representatives from NASA Kennedy Space Center and U.S. Air Force installations in the state attended the event, which was themed "Expanding the Business of Space in Florida." Sandy Magnus also participated in a number of the congressional visits where she shared her experiences as an astronaut. AIAA continues to be a bronze-level supporter of this event.

On the same day, AIAA members from the Hampton Roads and National Capital sections joined other aerospace stakeholders to discuss the many benefits the aerospace industry is bringing to the Commonwealth of Virginia. Growth



■ California Senator Jeff Stone with a NASA JPL representative at the California Aerospace Days exhibition.

opportunities with respect to unmanned aerial systems and the importance of inspiring school children to pursue studies in STEM dominated many of the conversations with lawmakers. AIAA was a silver-level sponsor and exhibitor at the Virginia Aviation Business Association's Legislative Reception, which provided an opportunity to network with industry partners, state legislators, and state agency officials.

In addition to the individual state events, AIAA was an exhibitor at the National Conference of State Legislatures' (NCSL) Legislative Summit in Seattle last summer, where over 4,000 state legislators, their staff, and other state government officials from around the country gathered to network and address pressing issues. The summit provided an opportunity to introduce the Institute to a broad, new audience and to speak with many influential policymakers about the importance of aerospace to their districts and states. AIAA will exhibit again at NCSL's Legislative Summit later this summer in Chicago.

The PPC's States Advocacy Working Group has been organized to help enhance and expand AIAA's public policy activities at the state and local levels. Among other responsibilities, the working group will engage and educate local and state decision makers on the important role of the aerospace industry both locally and nationally. It will also strengthen local section public policy activities by identifying a State Public Policy Coordinator for those states with multiple AIAA sections, establish a "State Delegation Visits Day" at local congressional offices during recess periods, and support other section-developed events.

## Continued Collaboration with Partner Organizations/Societies

At the national level, AIAA continues to be engaged in important matters that have a great impact on our community and affect the Institute as a business. It has been three years since the Office of Science and Technology Policy (OSTP) directed federal agencies with more than \$100 million in annual research and development expenditures to develop plans for increasing public access to the results of the research they support, specifically scholarly publications and digital data. As we are already a member of the Association of American Publishers and its Professional and Scholarly Publishing Division (AAP/PSP), we are supportive of the AAP/PSP Government Affairs Task Force (GATF). The members of GATF, both commercial

and other society scientific and technical publishers, continue to seek a sustainable compromise between providing wider access to government-funded research while preserving flexible, evidence-based business models. This entails advocacy to the federal agencies that have issued public access plans covering publications and digital data, congressional committee staff, and directly to legislators.

Last summer, the Senate Homeland Security and Government Affairs Committee passed the Fair Access to Science and Technology Research Act, which essentially would codify in law OSTP's 2013 directive. Of particular concern with this bill is a provision that sets an arbitrary and ill-considered post-publication embargo period of no more than 12 months. It has yet to be considered by the full Senate and has not progressed from its initial introduction in the House of Representatives. AIAA and other members of GATF have been quite vocal in expressing opposition to this legislation. Furthermore, we continue to play an active role in advocating for approaches that do not harm the peer-review process and undermine a fundamental role of AIAA and its fellow technical societies in publishing, preserving, and disseminating cutting-edge technical content.

AIAA is also part of a large coalition composed of other scientific and engineering societies actively advocating for the easing of travel restrictions for federal employees attending science and technology conferences. Coalition members have held several meetings with congressional offices in an attempt to incorporate language into germane legislation that will define an exemption for the sciences. Meanwhile, AIAA has also been engaged in formal conversations with federal agencies to find ways to ease the restrictions at the department level. Language included in the Consolidated Appropriations Act of Fiscal Year 2016 grants the Office of Management and Budget authority to update their existing guidelines restricting federal employee travel. This positive development will aid our coalition's efforts when working with the administration and other key stakeholders to alleviate these unnecessary burdens.

Our outreach on this important matter has not been limited to discussions with policymakers. Last November, *The Washington Post* published an opinion piece by Sandy Magnus that explained how onerous restrictions on federal workers' travel to pertinent technical meetings have consequently diminished collaboration with their private sector peers. The op-ed included stories from a few AIAA members illustrating the benefits of scientific conferences to their

research and the advancement of their careers. We appreciate those members who shared stories through the American Association for the Advancement of Science's submission webpage and encourage others to do the same.

Separately, AIAA led a coalition of space organizations and released a joint white paper, "Ensuring U.S. Leadership in Space," at a National Press Club Newsmakers news conference at the National Press Club in Washington, D.C. The work highlights and addresses the challenges facing continued U.S. exploration and use of space, and the need for the next administration and Congress to make space policy a priority. The paper offers sensible policy solutions to the four most common challenges that continued space exploration and use efforts face – unpredictable budgeting, foreign competition, the hostile space environment, and workforce trends.

The coalition lays out several policy proposals, which, if adopted, will help sustain U.S. leadership in space. Among them are: committing to predictable budgets, funding robust investments, promoting innovative partnerships, and repealing the Budget Control Act of 2011; continuing global space engagement through programs like the International Space Station; fully funding the Space Launch System, the Orion Multi-Purpose Crew Vehicle, and the Commercial Crew programs; providing increased resources for national security space and launch programs; promoting STEM education; retaining U.S.-educated workers; and further reducing barriers to international trade.

## Keeping Our Members Informed

To help stimulate interest and promote engagement in the Institute's public policy activities a newsletter was established to highlight policy items of interest to our community. The quarterly bulletin also provides important updates from the PPC and mentions opportunities for members' to get involved.



## Strategic Relationship Management

The Strategic Relationship Management team serves the needs of our corporate members and supporters, nurturing mutually beneficial relationships and delivering an enhanced return on investment. Staff members manage all corporate membership and exhibit and sponsorship business with the companies in their tiers.

### Corporate Membership

- Members represent a “who’s who” of the aerospace industry, including large primes, FFRDCs, mid-tier suppliers and small business
- For a current list of members go to <http://www.aiaa.org/CorporateMembers>
- The Corporate Membership Committee is in the process of reorganizing itself to enable it to more effectively advance corporate members’ interests within the Institute
- AIAA AVIATION 2015 featured a VIP lunch with NASA Administrator Charles Bolden and five NASA Center Directors. It was an excellent opportunity for 30 corporate members to dialogue with industry and government and develop the business connections they need.

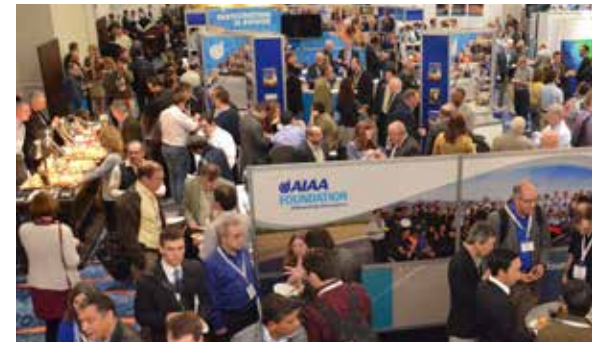
### Expositions

- Forum expositions continue to increase as exhibitors find AIAA forums a valuable place to meet with their customers
  - AIAA SciTech 2016 exhibits increased 10% from 2015, making it AIAA’s largest exposition in recent history
  - AIAA AVIATION 2016 exhibits are expected to increase 20% over 2015

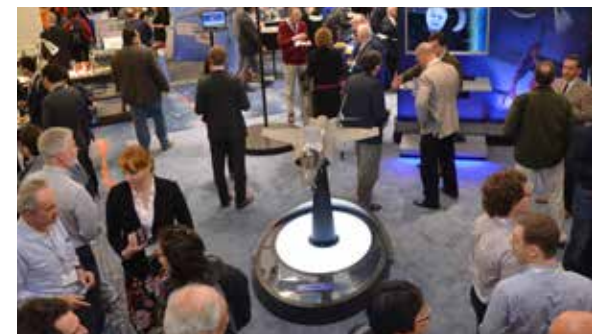
- Schedules are crafted to include dedicated attendee time on the exhibit floor, ensuring it is a central element of each of the forums
- Receptions, snacks, and cell phone charging stations position the exposition hall as the forum networking hub
- Forum exhibitors benefit from targeted reach and access to their customers and prospects.

### Sponsorship

- As companies see the value in the branding and awareness opportunities that AIAA forums offer, sponsorship continues to increase:
  - AIAA SciTech 2016 sponsorship increased 42% from 2015
  - AIAA AVIATION 2016 sponsorship is expected to increase 20% over 2015
- Several companies have taken advantage of AIAA’s flexibility in bundling and customizing sponsorship and exhibitor opportunities
- By supporting AIAA, forum sponsors enhance their corporate image, increase their visibility and show their support of the aerospace community and the next generation of aerospace professionals
- Boeing has partnered with AIAA to celebrate its 100<sup>th</sup> anniversary. The benefits provided by AIAA corporate membership, exhibits, and sponsorship provide unique branding and messaging opportunities.



Attendees network with exhibitors and colleagues in the AIAA SciTech 2016 Exposition Hall.



AIAA forums offer exhibitors the chance to promote their brand, network with industry peers, and enhance relationships with business partners.



Sponsor support is critical to the success of the AIAA forums. Sponsor benefits include branding and marketing opportunities, as well as connection to customers, prospects, young professionals, and students.

# Serving the Profession: The Future



■ April Anlage from the University of Virginia helps kids build simple model rockets.



■ The Pennsylvania State University AIAA Student Branch visit to National Air Force Museum.

## Student Engagement

AIAA currently has over 200 student branches around the world. Of those branches, 176 (80%) are in the United States and 38 (20%) are international. In 2015–2016 nine new student branches were chartered. Many of the student branches participate in AIAA Student Programs such as Regional Student Conferences and Design Competitions. Students are eager to participate and get involved with their local regions and sections. They organize STEM events in their communities and participate in local events.

Many students reach outside their university lives to continue educating themselves through tours and field trips to places such as NASA Goddard Space Flight Center and the National Air and Space Museum's Udvar-Hazy Center, and taking part in the AIAA Congressional Visits Day (CVD).



■ The University of Florida AIAA Student Branch participates in "Introduce a Girl to Engineering Day" with water bottle rockets.



■ Students from The Pennsylvania State University AIAA Student Branch attending CVD 2015.



The AIAA Student Branches also have the opportunity to use the AIAA Distinguished Lecturer Program. This program enables branches to invite speakers to their university to speak to the students. Students find this program to be a great benefit and opportunity. One example of this program is at the University of Virginia.

"Every year a speaker from the aerospace community is invited to speak about projects and topics relevant to the industry at the dinner in the spring semester. This year our speaker was Todd Barber, a distinguished member of NASA's Jet Propulsion Lab in California. This opportunity allowed students and faculty from the community to come together and helped increase interest with research and development of aerospace technologies. Mr. Barber's energizing talk was on Curiosity, the rover currently exploring Mars. He left the audience captivated and inspired, and many students were able to engage Mr. Barber with questions after the talk. He also gave valuable insight into potential career paths students can choose in order to be a part of the growing industry."

— **Chandrakanth Venigalla**, 2014–2015 Chair, University of Virginia AIAA Student Branch (from Annual Report 2014–2015)

## International

As part of its international strategy, AIAA strives to increase its international presence through active participation in global meetings and conferences. To this end, in 2014 the Institute decided to launch a bid to host the 70<sup>th</sup> International Astronautical Congress (IAC) in Washington, D.C., in 2019.

In 2019, humanity will celebrate the 50<sup>th</sup> anniversary of a feat once thought impossible: humans walking on the moon. The Institute believes it is a fitting time to invite the world to commemorate that “one giant leap for mankind” and celebrate the international accomplishments and partnerships that have become the hallmarks of space exploration. As the seat of U.S. government, Washington, D.C., guarantees that key policy- and decision makers will hear the message that space exploration and technology development are critical to humanity. We believe Washington, D.C., is a city rich with diverse culture and welcoming charm and will provide an excellent backdrop to IAC delegates as they celebrate the power of our global accomplishments to date and the promise of our collective future in space.

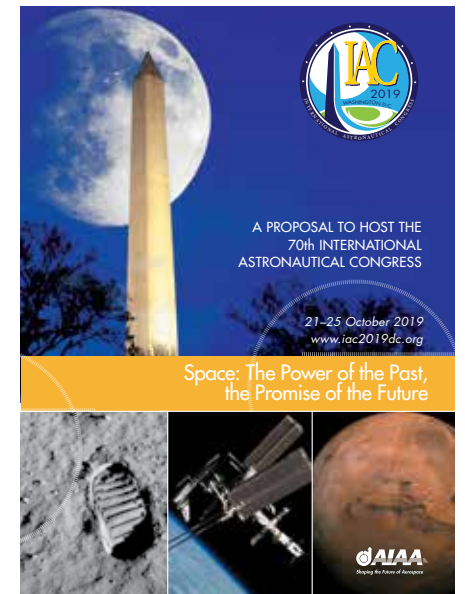
The IAC is the premiere annual event of the International Astronautical Federation (IAF) and its partner organizations, the International Academy of Astronautics (IAA) and the International Institute of Space Law (IISL). The event brings together thousands of decision makers from across all sectors of the global space industry to discuss the latest space discoveries and developments, as well as to explore opportunities to partner and collaborate. Many AIAA members participate in the IAC, and some are active on the committees that support the IAF, IAA, and IISL.

This past year, the Institute has focused its efforts on promoting its bid to host IAC 2019 among its various stakeholder communities. We have been successful in securing support from NASA, the National Oceanic and Atmospheric Administration, the Smithsonian Institution's National Air and Space Museum, the Federal Aviation Administration's Office of Commercial Space Transportation, both city and regional government representatives, and a number of industry partners.

As a part of these promotion efforts, an AIAA delegation traveled to Jerusalem for the 66<sup>th</sup> IAC in October 2015, which was hosted by the Israel Space Agency. The delegation engaged with its existing international partners, while also exploring opportunities for further collaboration with new organizations and IAF members. In addition, the 66<sup>th</sup> Congress provided an excellent opportunity to promote the Institute's bid to the IAF community.

In early 2016, AIAA representatives traveled to Vienna, Austria, to participate in the United Nations Committee on the Peaceful Uses of Outer Space Science and Technology Subcommittee (UN COPUOS STSC) meeting. The event provided an additional opportunity for AIAA to engage with its international members and partners and promote the IAC 2019 bid.

Finally, in March 2016, AIAA participated in the IAF Spring Meetings held in Paris, France, meeting with officials from the European Space Agency, the Centre National d'Études Spatiales, NASA, and international industry to increase visibility and garner support for its bid to host IAC 2019. These meetings yielded positive results and included endorsements from key representatives within the international space community.



■ AIAA Executive Director Sandy Magnus and AIAA Program Manager Madhurita Sengupta with attendees at the AIAA booth at IAC 2015, which took place in Jerusalem, Israel, in October.



■ United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) Scientific and Technical Subcommittee Meeting, February 2016

■ AIAA submitted a proposal to host the 70<sup>th</sup> International Astronautical Congress in Washington, D.C., in 2019

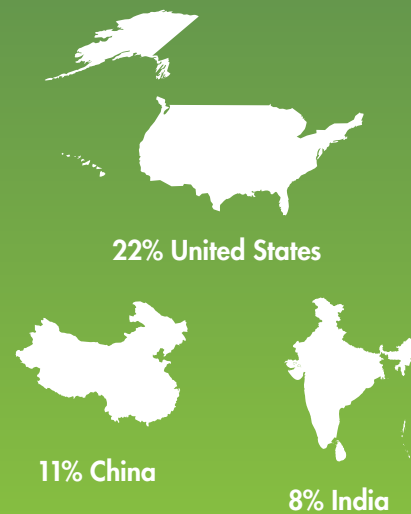
## Statistics 2015

1.26 Million New (51%)



1.20 Million Returning (49%)

Top 3 Countries (by percentage)



# Publishing Essential Technical Information

## Books and Journals

### Air Traffic Control Quarterly Acquired by AIAA, Expanded and Renamed

In fall 2015, ownership and full publishing operations for *Air Traffic Control Quarterly (ATCQ)*, originally published by the Air Traffic Control Association, transitioned to AIAA. Under a new name, the *Journal of Air Transportation (JAT)* became available online to subscribers starting with Vol. 24, No. 1 in January 2016. With an expanded journal scope, *JAT* focuses on new developments in air traffic management and aviation operations of all flight vehicles, including unmanned aerial vehicles and space vehicles, operating in global airspace.

AIAA's ScholarOne manuscript site for *JAT* opened for submissions in October 2015, and papers already in progress for publication in *ATCQ* were transferred to AIAA's manuscript workflow. Karl Bilimoria, from NASA Ames Research Center, was appointed to serve as the Interim Editor-in-Chief of the journal; the permanent Editor-in-Chief will be appointed in spring 2016, following a formal search. Current issues of *JAT* and the complete archive of *ATCQ* past issues will become available in Aerospace Research Central (<http://arc.aiaa.org/loi/jat>) in summer 2016.

AIAA is pleased to support the air traffic management community with the acquisition of this journal, with special acknowledgment owed to MITRE, NASA, and the FAA for their steadfast support of *ATCQ* over the years.

### New Journal Editor-in-Chief Appointments

In 2015, Alexander "Lex" Smits was formally appointed as Editor-in-Chief of *AIAA Journal (AIAAJ)*. Smits chaired Princeton's Department of Mechanical and Aerospace Engineering from 2007 to 2014 and has a diverse area of research and personal interests that align with the broad scope of *AIAAJ*. His interests include fundamental research in turbulence and fluid mechanics; the behavior of low and high Reynolds number turbulent boundary layers at

subsonic, supersonic and hypersonic speeds; shockwave/turbulent boundary layer interactions; effects of roughness; flow control; Taylor-Couette flows; biomimetic flows; sports ball aerodynamics, wind turbine aerodynamics, and the development of new and improved measurement techniques.

An AIAA Fellow, Smits' past honors include the 2014 AIAA Fluid Dynamics Award, the 2007 AIAA Pendray Aerospace Literature Award, and the 2004 AIAA Fluid Dynamics Award. Smits is a member of the National Academy of Engineering, as well as a fellow of the Australasian Fluid Mechanics Society, the American Association for the Advancement of Science, the American Society of Mechanical Engineers, and the American Physical Society. He has been a member of AIAA's Institute Development Committee and the Fluid Dynamics Technical Committee.

Lex Smits was selected from a competitive pool of applicants, and becomes the seventh editor-in-chief of the journal. The *AIAA Journal* was established by AIAA in 1963, following the merger of the Institute of the Aerospace Sciences and the American Rocket Society, and grew out of these predecessor societies' journals, the *Journal of the Aerospace Sciences* and *ARS Journal*, respectively. Smits succeeded Prof. Peretz Friedmann of the University of Michigan, who served as editor-in-chief of *AIAAJ* from 2009 to 2014.

In summer 2015, following six years as Editor-in-Chief of the *Journal of Propulsion and Power (JPP)*, Douglas Talley of the Air Force Research Laboratory announced his intention to retire from the journal at the end of the year. A search for his replacement commenced in the fall, leading to the selection of Joseph Powers, who was formally appointed as the new Editor-in-Chief of *JPP* in early January 2016.

Powers currently serves as Professor and Associate Chair of the Department of Aerospace and Mechanical Engineering, with a concurrent appointment to the Department of Applied and Computational Mathematics and Statistics at the University



The new *Journal of Air Transportation* logo.

### Technical Papers 2015

Total Number of Abstracts Submitted:	6,079
Total Number of Abstracts Rejected or Withdrawn:	1,738
Total Number of Papers Published in Conference Proceedings:	4,341

### Journals 2015

Total Number of Manuscripts Submitted:	3,023
Total Number of Manuscripts Rejected:	1,471
Total Number of Articles Published in all Journals:	1,095



## Journal Special Sections

### Journal of Aircraft

July/August 2015:

**“Second High Lift Prediction Workshop”** (9 papers), organized by Chris Rumsey

### Journal of Aerospace Information Systems

January 2015:

**“Uncertainty Quantification”** (12 papers), organized by Luis G. Crespo and Sean P. Kenny

July 2015:

**“Aerospace Human–Automation Interaction”** (6 papers), organized by Karen M. Feigh and M. M. (René) van Paassen

October 2015:

**“Optimal Decision Making in Aerospace Systems”** (4 papers), organized by Mykel J. Kochenderfer

December 2015:

**“Estimation and Information Theory: Application for Resilient and Distributed Operation of Aerospace Systems”** (11 papers), organized by Girish Chowdhary

### Journal of Guidance, Control, and Dynamics

September 2015:

**“Special Issue in Honor of Richard Battin”** (30 papers), organized by John Junkins, Donald C. Fraser, Kyle T. Alfriend, George T. Schmidt

### Journal of Spacecraft and Rockets

January/February 2015:

**“Numerical Simulation of Hypersonic Flows”** (5 papers), organized by Russell Cummings

of Notre Dame. He has been at Notre Dame since 1989, and his professional duties include research program development in theoretical combustion, leading a research team in the Center for Shock Wave-processing of Advanced Reactive Materials, teaching undergraduate and graduate courses, and various department, college, and university service work, including supervision of undergraduate programs in Aerospace and Mechanical Engineering.

An AIAA Associate Fellow, Powers was the recipient of an AIAA Distinguished Service Award from the AIAA Propellants and Combustion Technical Committee. He is a member of the Committee on Standards in Computational Fluid Dynamics and has served as a Conference Organizer and Session Chair for various AIAA conferences. He is a member of the International Colloquium on Dynamics of Explosions and Reactive Systems, the Combustion Institute, the Society of Industrial and Applied Mathematics, and the American Physical Society. Before his appointment as Editor-in-Chief, Powers provided exemplary service as an Associate Editor for *JPP*, serving since 2003.

Established in 1986 with the support of AIAA’s propulsion-related technical committees, *JPP* had its roots in the American Rocket Society’s journal, *Jet Propulsion*, and provided a broader venue for papers than the *Journal of Energy*, which ceased publication in 1983. Powers is the fourth Editor-in-Chief of the journal.

## Open Access Option for AIAA’s Journals



All of AIAA’s scholarly journals are transitioning in 2016 to a hybrid open access model, with the institution of a modest \$1,500 article processing charge (APC). The voluntary APC reflects the value of the free access to the article, and authors who want their final, published articles to be openly accessible immediately upon publication now have the opportunity to make this happen.

For several years, AIAA has permitted authors to post their accepted manuscripts on their personal websites and in university or institutional repositories, so long as the content is not for sale. This new opportunity for author funding of open access through AIAA ensures that the most up-to-date version of the article in Aerospace Research Central (ARC) is freely available and easily discoverable online.

Publishing with AIAA supports all authors by providing infrastructure, tools, and features in ARC to display, preserve, and protect scholarly content, and to ensure that the most up-to-date versions of our journal articles are discoverable by the research community.

## AIAA Joins CHORUS: Clearing House for Open Research in the United States



AIAA joined CHORUS in fall 2015, in support of journal authors conducting federally funded research. U.S. federal agencies with annual R&D budgets in excess of \$100 million were tasked by the White House’s Office of Science and Technology Policy in 2013 to develop public access plans so that journal articles and digital data resulting from federally funded research will be freely available to the public within one year of publication. Authors who accept federal grants are responsible for depositing accepted journal manuscripts into dedicated archives and otherwise complying with agency mandates.

AIAA’s membership in CHORUS seeks to ensure and promote the reliability and accuracy of the journal articles we publish and to maximize the user experience in Aerospace Research Central by providing robust research tools and access to articles presented in an appropriate scholarly context. CHORUS monitors and reports on funded research across federal agencies, links participating agency archive search portals, and points to open access articles on publishers’ sites when they are available.

## AIAA Education Series

**Introduction to Aeronautics, Third Edition**, by S. Brandt

**Performance, Stability, Dynamics and Control of Airplanes, Third Edition**, by B. Pamadi

**Space Vehicle Dynamics, Control, and Astrodynamics**, by B. Wie

## Progress in Astronautics and Aeronautics

**Flight Vehicle System Identification, Second Edition**, by R. Jategaonkar

**Hypersonic Nonequilibrium Flows**, Edited by E. Josyula

**Fundamentals of Kalman Filtering, Fourth Edition**, by P. Zarchan

**Precision Aerial Delivery Systems: Modeling, Dynamics, and Control**, Edited by O. Yakimenko

**Space Operations: Innovations, Inventions, and Discoveries**, Edited by C. Cruzen, M. Schmidhuber, L. Dubon

## Library of Flight

**Gottinger Monograph N: German Research and Dev on Rotary-Wing Aircraft**, Edited by B. Van der Wall

**Intercept 1961: The Birth of Soviet Missile Defense**, by M. Gruntman

**Advanced Airship Technologies and Design Approaches**, by P. Hunt

## The Aerospace Press

**Spacecraft and Payload Pointing**, by G. Smit

## Standards

### New AIAA Standard on Radio Frequency Breakdown Prevention Nearing Publication

The first in the series of industry-wide standards for component, subsystem, and system tests with respect to Radio Frequency (RF) breakdown risk mitigation is nearing publication.

ANSI/AIAA S-142-201X, Radio Frequency (RF) Breakdown Prevention in Spacecraft Components provides a standardized process for mitigation of RF breakdown within spacecraft components. It is directed toward component designers, satellite system engineers, as well as the customer community to provide margin requirements and verification of those requirements using state-of-the-art methodologies.

This document provides new benefits to customer, contractor, and supplier groups by providing clear margin definitions and requirements, while removing excessive margin through the application of this bounding case process. Proper implementation of the latest analysis techniques can, in some cases, eliminate the need for expensive qualification/acceptance testing with more accurate and representative numerical analysis. Adherence to test requirements will provide risk reduction and early issue identification and prevent expensive failures late into the integration cycle. By following the requirements and process outlined in this document, multipactor risk within spacecraft components should be minimized throughout the component life cycle.

### New AIAA Standard on Occupant-Imparted Loads for Commercial Space Nearing Publication

AIAA has partnered with the Commercial Spaceflight Federation (CSF) to develop new standards pertaining to commercial space systems and operations. AIAA/CSF S-143-201X, Occupant-Imparted Loads for Commercial Suborbital RLVs is nearing publication. It covers human engineering design practices and recommendations to assist the designer in determining expected intentional load conditions on commercial space vehicle controls and mobility elements.

The design principles included in this document are written with the intent that an experienced engineer, trained in the specific technical area under consideration, should be able to interpret, tailor, apply, and evaluate a particular system design as appropriate for the intended use and target population.

### Three New ISO/TC 20/SC 16 Work Items Approved for Unmanned Aircraft Systems (UAS)

The ISO subcommittee on Unmanned Aircraft Systems (ISO/TC 20/SC 16), for which AIAA administers the U.S. Technical Advisory Group (TAG), has established three new working groups and issued three new work item proposals for member country ballot.

The three new working groups are:

- ISO/TC 20/SC 16/WG 1, General specifications (Convener: Anton Shalaev [Russia])
- ISO/TC 20/SC 16/WG 2, Product systems (Convener: Doug Davis [USA])
- ISO/TC 20/SC 16/WG 3, Operational procedures (Convener: Bob Garbett [UK])

The three new work item proposals undergoing member country ballot are:

- Unmanned Aircraft Systems — Part 1: General specification (Scope: Specifies the general requirements for UAS for civil and commercial applications.)
- Unmanned Aircraft Systems — Part 2: Product systems (Scope: Specifies requirements for the design, manufacture and continued airworthiness of any UAS. It includes the aircraft, any associated remote pilot station(s), the required command and control links and any other system elements as may be required.)
- Unmanned Aircraft Systems — Part 3: Operational procedures (Scope: Specifies the requirements for UAS operational procedures.)

#### Documents Published in 2015

ANSI/AIAA S-017B-2015	Aerodynamic Decelerator and Parachute Drawings
ANSI/AIAA S-102.2.4-2015	Capability-Based Product Failure Mode, Effects and Criticality Analysis (FMECA) Requirements
ANSI/AIAA S-120A-2015	Mass Properties Control for Space Systems
AIAA G-140-2015	Terrestrial Environment (Climatic) Criteria Guidelines for Use in Aerospace Vehicle Development

#### Documents Under Development

AIAA G-077A	Guide for the Verification and Validation of CFD Simulations
ANSI/AIAA S-080A	Space Systems—Metallic Pressure Vessels, Pressurized Structures, Pressure Components, and Special Pressurized Equipment
ANSI/AIAA S-081B	Space Systems—Composite Overwrapped Pressure Vessels (COPVs)
AIAA R-093A	Calibration of Subsonic and Transonic Wind Tunnels
AIAA G-095A	Guide for the Safety of Hydrogen and Hydrogen Systems
AIAA G-097	Guide to Atmospheric Turbulence Models for Aeronautical and Aerospace Applications
AIAA G-109	Guide to Solar Irradiance Models
AIAA S-113A	Criteria for Explosive Systems and Devices on Space and Launch Vehicles
AIAA S-117A	Space Systems Verification Program and Management Process
AIAA S-121A	Electromagnetic Compatibility Requirements for Space Equipment and Systems
AIAA G-135	Aerospace Systems Integration Guide
AIAA S-136	Battery Safety Standard for Space Applications
ANSI/AIAA S-141	Code Verification in Computational Fluid Dynamics
ANSI/AIAA S-142	Standard/Handbook for Radio Frequency (RF) Breakdown Prevention in Spacecraft Components
AIAA S-143	Occupant-Imparted Loads for Commercial Suborbital RLVs



# Creating Value for Members and the Aerospace Community

## Content Development

Professional societies like AIAA are facing challenges with how to stay relevant and valuable to their members. Because of the industry we serve, AIAA's challenges are especially acute. Looking at the aerospace industry landscape and environment, we recognize that:

- The world is increasingly driven by technology
- The aerospace industry is mature, but not a commodity
- Careers are no longer defined by a continuous trajectory at one employer
- The role of the professional society is shifting and AIAA must move with that dynamic

While AIAA is an important and objective resource for scientists, engineers, technologists, program managers, operators and policy experts, to remain so we need to:

- Move beyond our focus on traditional products and services
- Incorporate activities and resources that allow the community to stay connected
- Be the organization where thought leaders in emerging technology sectors gather to advance the state of the art
- Offer professional growth opportunities
- Engage in addressing the challenges facing the industry
- Celebrate and communicate the successes of our industry and our members

In fall 2014, AIAA added a Content Development Division to its staff structure to help identify where AIAA should focus as an organization as we evolve in how we serve our members. This division works with members and staff to continually identify, assess, and develop content and programming in technical, managerial, and policy-related areas that are relevant, timely, and important to the aerospace industry and profession and to the Institute's existing membership (individual and corporate). The intent is for this content and programming to entice aerospace professionals to engage with AIAA in such a way as to mutually benefit the industry, the profession, and the Institute.

Over the past year, a focus of the Content Development area has been the AIAA Growth Plan, which is a part of the overall Institute Strategic Plan. In May 2015, five trends/sectors were identified as priorities from a longer list of trends for the Institute to achieve growth and increase its relevance to the aerospace industry.

- Commercialization of space
- Cybersecurity
- Advanced manufacturing
- Unmanned aerial systems/Autonomy
- Rotorcraft/Runway independent vehicles

In addition to ensuring that these topics are infused into current AIAA products and programs, new activities are being identified and implemented as part of the Growth Plan.



#### Social Media Across all 2015 AIAA Forums

Total Tweets at all Forums: 13,291

Total Twitter Timeline Deliveries from all Forums: 152,957,592

Total People Reached by Twitter at all Forums: 11,853,998

Tweet-ups have become very popular with AIAA Forum attendees.

Social media has become fully integrated into the experience of attending an AIAA Forum.

## Events

### Forums Highlight Challenges and Opportunities

AIAA forums are a key venue for AIAA to address issues facing the industry as well as educate members and attendees about areas that impact aerospace. Since the advent of the forums, the Executive Steering Committees that guide these events, select topics and speakers for plenary and panel sessions that will help advance the Institute as well as the industry. Headlines from the past year of forums indicate areas of challenges and opportunities for the industry in the near future.



### Bolden pledges more groundbreaking research with industry

Touching on everything from bug residue on aircraft to the economic impacts of aviation, Administrator Charles F. Bolden said NASA is anxious to continue its research with the industry, and he singled out environmentally friendly flight as a special priority.

### Calling for a new engineering mindset

Panelists from The Boeing Company, Lockheed Martin Corporation, Bell Helicopter, and Johns Hopkins University's Applied Physics Laboratory commented that engineers, program managers, and companies aren't innovating as quickly as many in the industry would like. The panel was part of an ongoing effort at AIAA to identify methods for shortening the development cycles for new aircraft, despite ever-increasing complexities and financial pressures.

### Airbus Group CEO calls for cultural adjustment

The aerospace industry should embrace disruptive, innovative technologies and accept that some of those technologies will fail before they reach the market, said Tom Enders, CEO of Airbus Group. He cautioned that without adjustment toward a culture that adopts the "fail-early, fail-often" attitude that is prevalent among Internet development companies, the aerospace industry risks falling behind and being bound by a risk-averse nature.



### Global collaboration for aerospace companies is result of market, brings advantages

A panel composed of representatives from global aviation and space industry companies working internationally discussed their experiences in global collaborations and joint partnerships. Factors such as increasing competition, decreasing budgets, and the need to be agile led to collaboration. The panelists agreed that both competition and collaboration are essential to the aerospace industry.

### Electric airliners: Finding the missing ingredients

Creating an electric passenger plane capable of carrying more than 100 people will require persistence and an unprecedented cross-domain collaboration among aircraft designers, battery makers and the auto and marine industries, according to a panel of representatives from the aerospace industry. The panel recognized that experts need to look at multiple industries to pull from to advance technology in this area. It was suggested that AIAA could play a role in bringing together multiple disciplines that touch aircraft electric propulsion.

### Future of propulsion and power is lighter, cooler, faster and global

Christopher "Chris" Lorence, general manager of engineering technologies with GE Aviation, kicked off the forum with a talk about the future of propulsion and energy systems. Lorence believes that eventually propulsion and energy systems on aircraft will be largely indistinguishable, bringing "the fields of propulsion and energy creation together."



## Systems-level approach needed to secure space systems from cyberattacks

Space systems are unique pieces of technology and engineering and will require a different approach than merely looking at an IT solution in order to secure them from cyberattacks. This was a takeaway from a panel discussion that emphasized it would not be effective to secure a space system merely by installing an anti-virus software suite and scanning for malware. Rather, the needed approach requires a systems engineering perspective that secures every piece of the dispersed, ground-based instrument control systems in addition to the spacecraft.

## Satellite servicing has potential to transform space industry

On-orbit satellite servicing, which can breathe new life into inoperable spacecraft, could transform the space industry, according to a panel of civil, defense, and commercial space experts. From satellite inspection, to supporting a spacecraft launched into the wrong orbit, to active servicing tasks such as refueling or hardware replacement, spacecraft with the capability of rendezvousing and docking with other satellites could deliver enormous savings.

## Future of space exploration: Reusable, cooperative, cheaper

A panel of leaders from civil, commercial, and government space, representing Lockheed Martin, NASA, SpaceX and the U.S. Air Force commented that space in the future will be reusable, cooperative and cheaper, with Mars being the key destination for exploration. All the panelists indicated that reusable systems reduce the overall cost of exploration missions, and will make it possible for the United States to press farther in future missions. The panel also noted the importance of robust cybersecurity in space systems and the need for closer work with U.S. international partners.



## UAS set to transform aerospace and the world

Unmanned aerial systems (UAS) soon will transform the aerospace industry and the world, and UAS will one day be everywhere, predicted Treggon Owens, founding partner and CEO of Aerial MOB, an unmanned aerial services company known for “making movies with drones.” During his comments, Owens noted that the drone industry needs R&D focus in the following areas: collective pitch multi-rotor, battery system energy storage for longer duration flights, lighter weight materials for propulsion system, and motion stabilization, especially for vehicles weighing less than 55 lbs.

## 3-D printing creates opportunities in aerospace

Additive manufacturing, or 3-D printing, offers many opportunities for engineers and product designers, but there are some constraints. Several representatives from the space sector spoke on these pros and cons. While the positives are the development of new kinds of products with structures and electronics integrated, some of the challenges in introducing additive manufacturing techniques to an existing product line include cost constraints and difficulties in persuading engineers to shift from metal to composite materials.

## Embedded electronics add capability, cybersecurity risks

On average, there are 205 days between a cyberattack and the discovery of the breach, said Chan D. Lieu, senior legislative adviser with Venable LLP, kicking off a cybersecurity panel discussion. Throughout the session, panelists focused on ways that information security knowledge from other industries could be applied to aerospace. They all agreed that with embedded electronics, all industries face more cybersecurity risks, and aerospace will need to adapt accordingly.

### UPCOMING FORUMS

#### AIAA AVIATION 2016

13–17 June 2016

Washington, D.C.

<http://www.aiaa-aviation.org>

#### AIAA Propulsion and Energy 2016

25–27 July 2016

Salt Lake City, UT

<http://www.aiaa-propulsionenergy.org>

#### AIAA SPACE 2016

13–16 September 2016

Long Beach, CA

<http://www.aiaa-space.org>

#### AIAA SciTech 2017

9–13 January 2017

Grapevine, TX

<http://www.aiaa-scitech.org>

#### AIAA DEFENSE 2017

25–27 April 2017

Laurel, MD

<http://www.aiaa-defense.org>

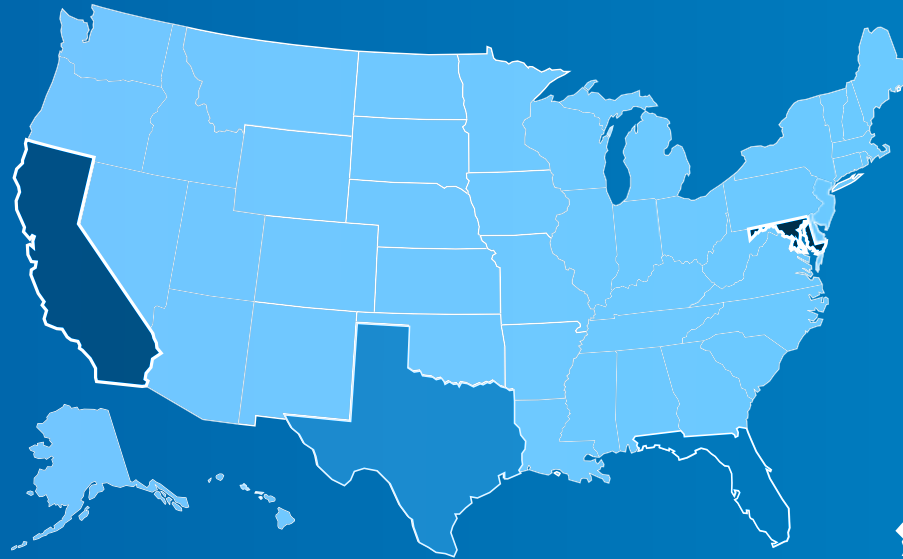
# AIAA 2015–2016 Forums



## SPACE 2015

31 August–2 September, Pasadena, CA

850 Attendees  
276 Papers Published  
19 Countries Represented



## DEFENSE 2015

8–10 March, Laurel, MD

185 Attendees  
63 Technical Presentations  
SECRET/U.S. ONLY



## SCITECH 2016

4–8 January, San Diego, CA

4,050 Attendees  
2,172 Papers Published  
46 Countries Represented



## AVIATION 2015

22–26 June, Dallas, TX

2,079 Attendees  
1,289 Papers Published  
41 Countries Represented



## PROPULSION ENERGY 2015

27–29 July, Orlando, FL

1,296 Attendees  
547 Papers Published  
29 Countries Represented

## Technical Activities

Technical Activities is made up of seven technical groups along with program committees. Within those seven technical groups are 71 technical committees (TCs) and 12 program committees (PCs). Although much of their time is spent organizing sessions for AIAA forums, a sampling of other activities that took place this past year follows.

**Aerospace Design and Structures** – The Materials TC with the support of Composite Design and Manufacturing HUB, Rolls-Royce Corporation, and NASA have established an Integrated Computational Materials Engineering (ICME) Prize for the best aerospace-focused ICME project. It will be presented biennially starting at AIAA SciTech 2018. For more information please go to <http://www.aiaa.org/ICME/>.

**Aerospace Sciences** – The Walter R. Lempert Student Paper Award in Diagnostics for Fluid Mechanics, Plasma Physics, and Energy Transfer has been created by the Aerodynamic Measurement Technology, Plasmadynamics and Lasers, and Propellants and Combustion TCs. The three TCs have raised funds for an AIAA memorial endowment that will support an annual award of \$500 cash plus some travel reimbursement for the most outstanding student paper within Lempert's field of research presented at the AIAA SciTech Forum. While Lempert's overall body of work is recognized with this award, it is his outstanding interaction with and mentoring of students that we would like to recognize with the establishment of this award. The award is administered by the AIAA Foundation.

The Atmospheric Flight Mechanics TC led by Peggy Hayes, past AFMTC chair and currently deputy director for the Aerospace Sciences Group, held a Mars Airplane live event at the AERO Institute in Palmdale, CA, on 16 October 2015. The event was attended by 72 people. The video and audio broadcast of the event was provided by the Digital Learning Network. The event was also shown remotely via live streaming provided by AIAA. To date, the broadcast has received 1,152 views.

**Information Systems** – In addition to the Information Systems Group TCs supporting Infotech@Aerospace at the SciTech Forum, the Intelligent Systems and Software TCs have been participating in the SPACE Forum. They along with the Economics and Systems Engineering TCs jointly had three sessions at AIAA SPACE 2015. The Intelligent Systems TC also held their Second Intelligent Systems workshop at NASA Ames and the Software TC formed the Aviation Cybersecurity Working Group.

**Propulsion and Energy** – The Propulsion and Energy Group has been developing activities to advance Aircraft Electric Propulsion as a key AIAA growth area. They also initiated a TC Chair Roundtable Discussion at their Propulsion and Energy Forum Group meeting. The purpose of the activity was to share successes and challenges across the TCs with the intent of learning from each other's experience. It was very well received and informative. They have also been reinvigorating the process for nominating candidates for their five Technical Excellence awards to ensure that an adequate number of qualified candidates are nominated for each award every year.

**Aircraft and Atmospheric Systems** – The Aircraft and Atmospheric Systems Group (AASG) has been working on improving the coordination between the TCs and the PCs. Four out of the six PC chairs invited to the AASG group meeting attended. Under the category of Best Practices, the Aircraft Design TC invites the award winner to come to the TC meeting for a one-hour presentation and discussion with the committee members. It has been very well received.

**Engineering and Technology Management** – This year has seen the Engineering and Technology Management Group (ETMG) working to incorporate the CASE program into all forums. CASE was originally held at the SPACE Forum and in 2015 sessions were incorporated at the AVIATION Forum with success. The ETMG is now working to add them to the Propulsion and Energy and SciTech Forums. The ETMG has also been involved in several outreach activities, including the Aerospace Technology Impact Initiative, Madras Middle School Young Astronauts Club, and NASA research announcement InSEEM proposal support. The Systems Engineering TC is in the final stages of working with AIAA Publications on a new book, *Advances in Systems Engineering*. The Society and Aerospace Technology TC participated in the Tucson Comic Con, where they gave out copies of *Aerospace America* to the crowd. The TC plans to write an article on how Comic Con offers a bridge to STEM.

**Space and Missiles** – Many of the committees within the Space and Missiles Group (SMG) are involved in STEM outreach activities. Some of the areas in which they are involved in include the Middle School National Student Essay Competition, STEM High School Teacher Awards, and University Student Design Contests. The group has successfully integrated the former Reinventing Space Conference's scope into the AIAA SPACE Forum with tracks called Reinventing Space. It is supported by the AIAA Los Angeles-Las Vegas Section, the AIAA Orange County Section, and the AIAA Space Systems TC. Some of the other ongoing SMG Initiatives include Standing Up Mentorship, Lessons Learned, Lunch and Learn, and Innovation Working Group.

**Program Committees** – After struggling for a few years, the Aerospace Traffic Management PC has seen a year of revitalization with the addition of members to the committee. The Directed Energy Systems PC is kicking off a new initiative on air platform high energy laser (HEL) integration and an exploratory working group has been formed to address emerging "digital life cycle system" capabilities/enablers in our community.

## Regions and Sections

Each month, dozens of activities take place across the United States and around the world in AIAA's 58 sections. These events help members exchange information, build professional relationships, mentor young professionals, reach out to local students, and support local communities. The following is a small sampling of events from the seven regions that exemplify the scope and diversity of the section programs, and attest to the hard work of AIAA members in the field.

### Region I

The New England Section held a Sky Diving and Wind Tunnel Design event at SkyVentures in Nashua, New Hampshire, in October. AIAA Associate Fellow Professor Eugene Niemi from the University of Massachusetts-Lowell gave a presentation on the dynamics of sky diving. SkyVenture employee Joseph Winters discussed his experiences and described the development of this wind tunnel design (originally detailed in a paper by Michael Palmer from the 38<sup>th</sup> Aerospace Sciences Meeting in January 2000: <http://arc.aiaa.org/doi/abs/10.2514/6.2000-289>).

### Region II

On 3 October, the Savannah Section partnered with the Society of Women Engineers (SWE) for a joint volunteer project with Habitat for Humanity. The event was held in Savannah and involved the construction/rehabilitation of housing for Habitat Partner Families.

### Region III

The Illinois Section supported University of Illinois students hosting this year's AIAA Region III Student Paper Conference 1–2 April. They brought together students from 18 universities across the Midwest. Their final attendance number of 102 was the largest in the history of the Region III Conference.

### Region IV

Volunteers represented the Albuquerque Section at the National Museum of Nuclear Science and History for the annual Discover STEM Day, which brings together local scientists and engineers to present kid-friendly hands-on activities to spark their interest in STEM subjects. There were satellite mockups from the Air Force Laboratory and the section's DreamFlyer Flight Simulator, which was a big hit with kids in attendance.

### Region V

The Wichita Section participated in the 18th Annual Engineering Expo, hosted by the local Society of Women Engineers section. The Wichita Section's booth encouraged children, kindergarten through 8th grade, to make and decorate their own paper airplanes while teaching the fundamentals of flight.

### Region VI

The Vandenberg Section continues to hold Trivia Nights, which are growing in popularity. In January, at Rooney's Irish Pub in Orcutt, California, they had over 35 attendees and 6 teams compete, representing the U.S. Air Force, several contractors, and the local community. The questions covered a wide variety of space and aviation topics, including Space History, Astronomy, WWII Aviation, Space Pop Culture, and more.

### Region VII

In November the Sydney Section hosted South Australian Deputy Government Whip Senator David Fawcett, who spoke on "Maintaining Australian Industry & Defence Engineering Technical Mastery." A well-attended networking evening reception preceded the lecture.



■ New England Section member Amanda Steckel skydiving in the wind tunnel at SkyVentures.



■ Members of the Wichita Section working with students at the 18th Annual Engineering Expo in Wichita.



■ Members of the Albuquerque Section help a student use their DreamFlyer Flight Simulator.



■ South Australian Senator David Fawcett speaking to the Sydney Section.





**William C. Seymore**

*William C. Seymore*

## Financials

Fiscal Year 2015 (FY15)\* was the first full year for Institute operations under the new Strategic Plan. The plan enabled the Institute to operate in challenging economic environments that produced positive program results in FY15. In FY15, continuing operations realized positive results for the second year in a row.

A challenging investment climate for the Institute's Endowment Portfolio produced negative investment results in FY15. The strength and scale of our portfolio still allowed for continued investments in AIAA's growth and sustainability. In FY15, the Institute invested in initiatives to fund growth dictated by the Strategic Plan and Institute Development Committee and to also donate the unused FY14 Pension termination set aside funds to the AIAA Foundation for program growth.

At year end, the Institute Endowment Portfolio balance was \$24,362,000 (after investment results and the donation of \$1 million of the FY14 surplus set-aside for the pension settlement to the Foundation and investment returns).

FY15 completed the Institute transition to five new forums: SciTech, DEFENSE, AVIATION, Propulsion and Energy, and SPACE. In FY15, the forums created improved economies of scale and produced better financial results.

AIAA's commitment to enhancing levels of service, creating and supporting world-class products and programs, and integrating technology that drives innovation in value delivery to our members, institutional and corporate partners around the world continued in FY15.

The net Institute financial results for FY15, including investment returns and funding initiatives was negative, as indicated by the attached Statements of Financial Position. There was a decrease in the Institute's total assets to \$37,665,000 at the end of FY15, from FY14's total of \$38,770,000, as well as a decrease in the Institute's net assets to \$29,772,000 from FY14's \$31,426,000.

Key elements of Institute financial statements are found on the following pages.

AIAA is tax exempt under Section 501(c) (3) of the Internal Revenue Code.

Audit Accounting Guidelines require the consolidation of financial results for Institute and the AIAA Foundation. The complete audited financial results for the Institute and its related Foundation are provided at <https://www.aiaa.org/AnnualReports/> <http://www.aiaafoundation.org/ImpactReport/>.

\* Note: AIAA's fiscal year runs from 1 October to 30 September.

## Statements of Activities

Year ended 30 September, (in thousands)

2015 2014

### Change in unrestricted net assets:

#### Revenue

Member services	\$ 4,126	\$ 4,032
Technical publications	9,589	9,504
Outreach	263	172
Technical activities	6,867	6,955
Revenues before investment return, contributions and net assets released from restriction	20,845	20,663
Investment return	(679)	2,296
Contributions	55	45
Net assets released from restriction	26	26
Total revenue	\$ 20,247	\$ 23,030

#### Expenses

Program services:		
Member services	\$ 3,460	\$ 3,500
Technical publications	4,910	4,693
Outreach	1,384	1,208
Technical activities	4,510	4,864
Strategic plan initiatives and business development	2,056	406
Other program services	1,007	647
Custodial program	26	26
General and administrative	4,358	5,218
Total expenses before investment expenses	21,711	20,562
Investment expenses	27	24
Total expenses	21,738	20,586
Change in unrestricted net assets	(1,491)	2,444

#### Change in temporarily restricted net assets:

Contributions and change in fair value of beneficial interest in trusts	(197)	1,183
Custodial program contributions	60	352
Net assets released from restriction	(26)	(26)
Change in temporarily restricted net assets:	(163)	1,509
Change in net assets from operations	(1,654)	3,953
Pension related changes other than net periodic pension cost	-	684
Net change in net assets	(1,654)	4,637
Net assets, beginning of year	31,426	26,789
Net assets, end of year	\$ 29,772	\$ 31,426

## Statements of Cash Flows

Years ended 30 September, (in thousands)

2015 2014

### Cash flows from operating activities

Net change in net assets	\$ (1,654)	\$ 4,637
Adjustments to reconcile change in net assets to net cash provided by (used in) operating activities:	-	-
Depreciation and amortization	552	563
Net realized and unrealized gains on investments	1,443	(1,587)
Changes in operating assets and liabilities:		
Accounts receivable, net	(510)	120
Beneficial interest in trusts	197	(1,183)
Prepaid expenses and other current assets	(503)	14
Due from Foundation	96	(49)
Inventory	31	(27)
Accounts payable and accrued expenses	95	(471)
Deferred member dues	50	(177)
Deferred subscriptions	182	259
Deferred other	244	9
Defined benefit pension liability	-	(3,666)
Other liabilities	(22)	40
Net cash provided by (used in) operating activities	201	(1,518)

### Cash flows from investing activities

Proceeds from the sale of investments	4,645	4,666
Purchases of investments	(6,133)	(1,210)
Purchases of fixed assets	(281)	(46)
Net cash (used in) provided by investing activities	(1,769)	3,410

### Cash flows from financing activities

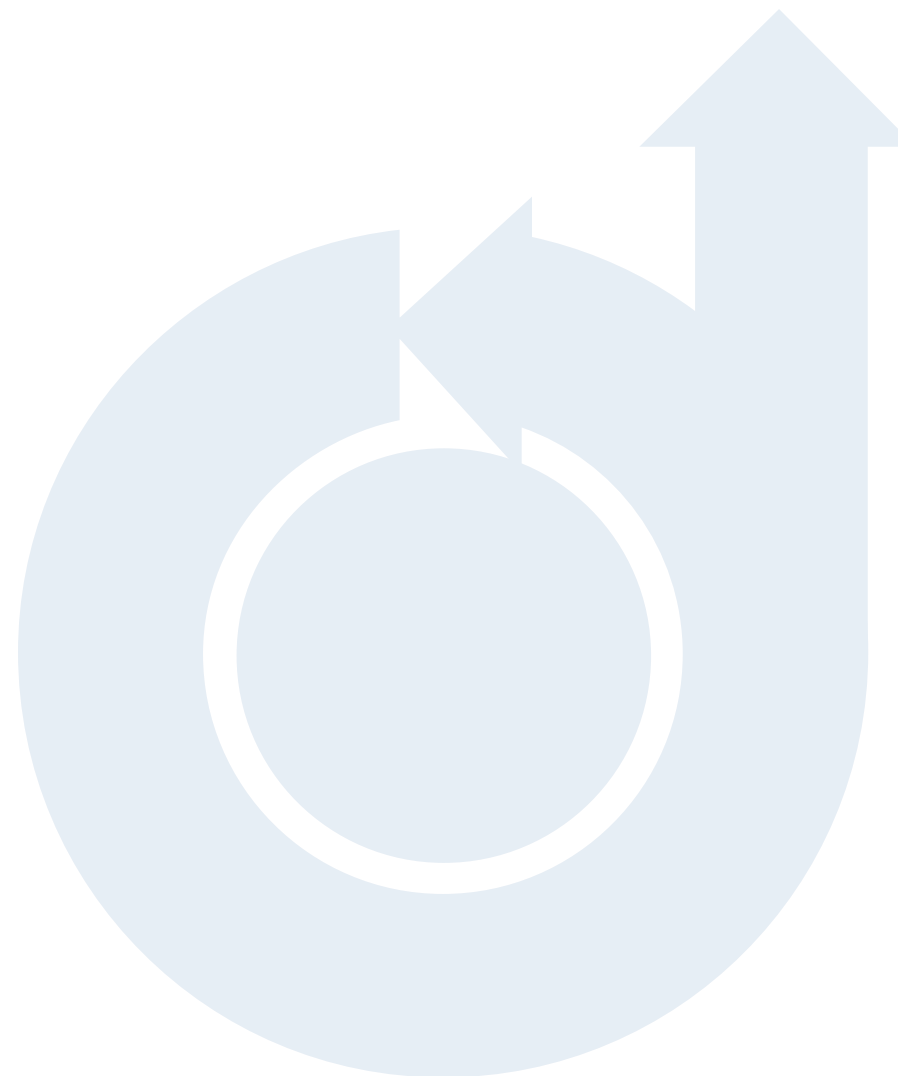
Capital lease obligation	-	(12)
Net cash (used in) financing activities	-	(12)
Net change in cash and cash equivalents	(1,568)	1,880
Cash and cash equivalents, beginning of year	3,358	1,478
Cash and cash equivalents, end of year	\$ 1,790	\$ 3,358

## Statements of Financial Position

(thousands)

Year ended 30 September, (in

	2015	2014
<b>Assets:</b>		
Cash and cash equivalents	\$ 1,790	\$ 3,358
Investments	24,362	24,317
Accounts receivable, net	881	371
Due from Foundation	3	99
Prepaid expenses and other current assets	875	372
Inventory	24	55
Beneficial interest in trusts	8,601	8,798
Fixed assets, net	<u>1,129</u>	<u>1,400</u>
Total assets	<u>\$ 37,665</u>	<u>\$ 38,770</u>
<b>Liabilities:</b>		
Accounts payable and accrued expenses	\$ 2,067	\$ 1,972
Deferred member dues	2,894	2,844
Deferred subscriptions	1,903	1,721
Deferred other	974	730
Other liabilities	<u>55</u>	<u>77</u>
Total liabilities	7,893	7,344
<b>Net assets:</b>		
Unrestricted net assets	\$ 20,811	\$ 22,302
Temporarily restricted net assets	8,961	9,124
Permanently restricted net assets	<u>-</u>	<u>-</u>
Total net assets	<u>29,772</u>	<u>31,426</u>
Total liabilities and net assets	<u>\$ 37,665</u>	<u>\$ 38,770</u>



# Leadership



## 2015–2016 AIAA Board Of Directors

The heart of the American Institute of Aeronautics and Astronautics is its volunteer leadership – AIAA members elected by their peers to serve on the Board of Directors. The Board is responsible for guiding the activities of the Institute and for stewarding its resources. Pursuant to the AIAA Constitution, most members of the Board of Directors serve three-year terms. Elections are held annually to fill normally expiring terms as well as any vacancies created by resignation or other causes. The voting period ends in early spring, and newly-elected members of the Board begin their service at the spring meeting of the Board. The volunteer leadership shown on these pages reflects the composition of the Board from May 2015 through June 2016.



■ **Members of the 2015–2016 AIAA Board of Directors: Back row (L-R):** 1. Angelo M. Iasiello; 2. Steven E. Gorrell; 3. Peter A. Montgomery; 4. Jeffrey Hamstra; 5. James A. Keenan; 6. Dimitri Mavris; 7. Ben D. Marchionna; 8. Richard W. Wlezien; 9. Tim Hinerman; 10. John D. Evans; 11. David R. Riley; 12. Nancy F. Andersen; 13. Basil Hassan; 14. Allen Arrington Jr.; 15. Jim M. Rankin; 16. Annalisa Weigel; 17. Daniel T. Jensen; 18. John Rose; 19. Bill Seymore. **Front row (L-R):** 20. Karen Rosenblum; 21. Mary L. Snitch; 22. Luisella Giulicchi; 23. Laura McGill; 24. Michael Griffin; 25. James G. Maser; 26. Samantha J. Alberts; 27. Shamim A. Rahman; 28. Sandra H. Magnus; 29. Achille Messac; 30. Laura A. Richard; 31. Ferdinand W. Grosveld; 32. L. Jane Hansen. (Not shown: James F. Albaugh, Neal Barlow, Frank K. Lu, Christian Mari, Jayant Ramakrishnan, and Mark S. Whorton)

**PRESIDENT (2014–2016)**

**James “Jim” F. Albaugh**  
Boeing Commercial Airplanes (Retired)

**DIRECTOR-IMMEDIATE PAST PRESIDENT (2014–2016)**

**Michael Griffin**  
Schafer Corporation

**DIRECTOR-PRESIDENT-ELECT (2015–2016)**

**James “Jim” G. Maser**  
Pratt & Whitney

**VICE PRESIDENT, EDUCATION (2013–2016)**

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**VICE PRESIDENT-ELECT, EDUCATION (2015–2016)**

**Richard W. Wlezien**  
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**VICE PRESIDENT, FINANCE (2015–2018)**

**Laura McGill**  
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**John D. Evans**  
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**VICE PRESIDENT-ELECT, PUBLIC POLICY (2015–2016)**

**John Rose**  
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VACANT

**DIRECTOR-INTERNATIONAL (2015–2018)**

**Christian Mari**  
MARI SCITECH

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Blue Origin

**STUDENT LIAISON (2015–2017)**

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Purdue University

**AIAA STAFF LIAISONS**

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**Angelo M. Iasiello**, Chief Operating Officer

**Karen G. Rosenblum**, Chief Financial Officer

**William C. Seymore**, Secretary/Treasurer

**Suzanne E. Rapp**, Executive & Governance Assistant



James G. Maser

# President-Elect's Report

## Let's Get to Work!

As I begin my term as AIAA President, I would like to thank Jim Albaugh for his two years of service to AIAA in this role. I have enjoyed working with him over the past year and look forward to continuing to do so in his role as Past President. Also, I would like to thank you for putting your trust in me to help lead AIAA for the next two years.

Both former presidents Mike Griffin and Jim Albaugh felt that evolving the governance structure of AIAA was vital to ensure the long-term health of our Institute. Toward that end they embarked on a course to make those needed changes a reality. Mike began the process under his presidency by communicating the need for change in his writings and by forming a Blue Ribbon Panel to study the Institute's governance structure. Jim continued those efforts, ultimately working with the Board to propose much-needed changes to the governance structure. In March, voting began to approve or reject those changes. Your votes show that by an overwhelming margin you agree with the importance of modernizing the AIAA system of governance.

Your approval of the governance changes means that we will now have the flexibility to adapt to rapidly changing conditions in the aerospace community, to reach into new areas of activity and interest, and to be more responsive to your needs as members. I am indebted to Mike and Jim, the Board of Directors, and the Governance Working Group for their excellent leadership and work on this issue – none of it could have happened without them. This will be an exciting time for the Institute as we find our footing with the new changes, and I'm confident that we will make the most of this opportunity.

The important work is still ahead – we must chart an implementation plan that rolls out these changes over the next two to three years in a gradual, incremental, and deliberate process to ensure minimum disruption to the Institute's activities. We must craft new policies and procedures for the implementation of the Bylaws, and incorporate them into AIAA's culture as we move forward. Voting was the easy part! We will be looking for help in discussing, drafting, and documenting the new policies and procedures that accompany the changes you approved.

Please continue to send your comments and feedback to your Board representatives. I firmly commit that what we do in this journey will be collaborative and transparent with regular communication on status and plans. I believe being flexible and willing to adapt is key for all of us. Clearly our goal is to ensure not only the future success of AIAA, but the future success and fulfillment of all of our members with a focus on advancing the state of the profession.

As we make these changes, we must continually ensure that AIAA remains on a firm financial footing, one that results in a lean and agile organization. I will continue to work with the Board of Directors and our Executive Director to ensure that happens. As our industry continues to evolve, AIAA must extend its reach into emerging areas, such as autonomy, advanced manufacturing, commercial space, cybersecurity, and hybrid flight technologies. Finally, given the importance of aerospace to our nation and the world, AIAA must continue to be a strong voice for our community, reminding lawmakers of the importance of what we do and how it benefits our nation by creating economic prosperity and jobs. We must continue to engage our national decision makers as well as lend our support as they attempt to answer the hard, often technical questions that govern so much of our industry's future.

There will be a lot to do over the next two years, and I am excited about the opportunity to serve you. Let's get started!



*Shaping the Future of Aerospace*

**American Institute of  
Aeronautics and Astronautics**

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