



ENGAGED FOR
TRANSFORMATION

2017-2018
AIAA ANNUAL REPORT

ENGAGED FOR **TRANSFORMATION**

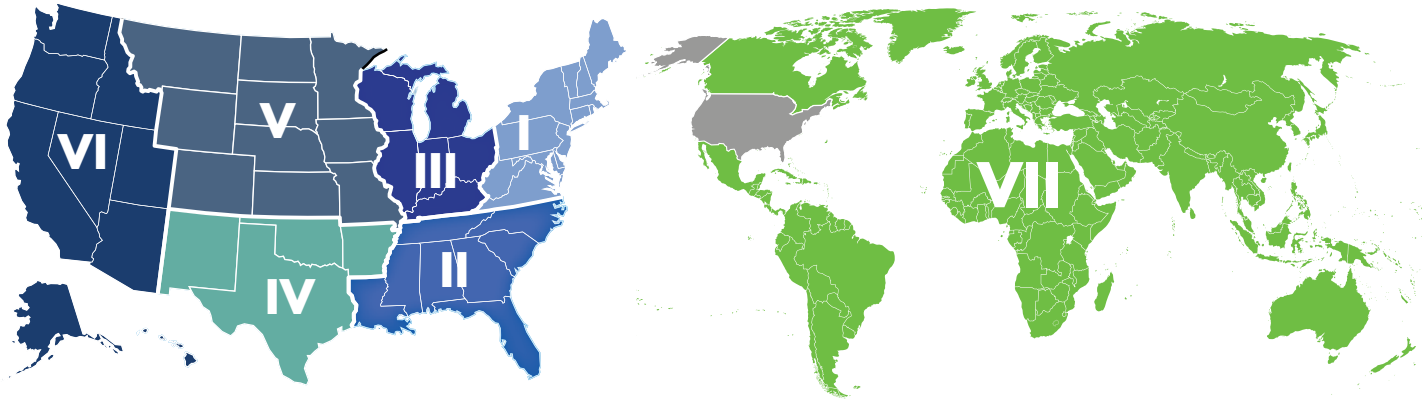
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The American Institute of Aeronautics and Astronautics (AIAA) is nearly 30,000 engineers and scientists from 88 countries dedicated to the global aerospace profession. AIAA convenes yearly forums; publishes books, technical journals, and *Aerospace America*; hosts a collection of 160,000 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.

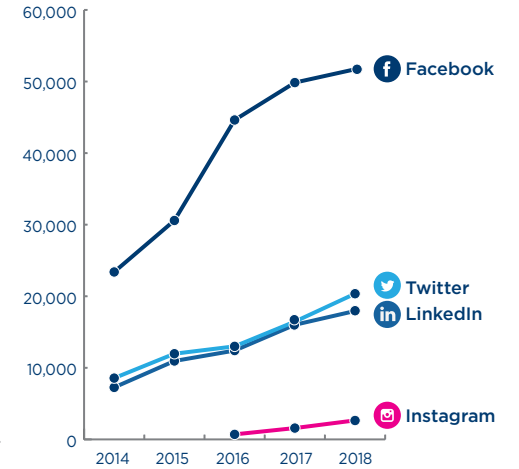
A SNAPSHOT OF AIAA

WHERE WE ARE



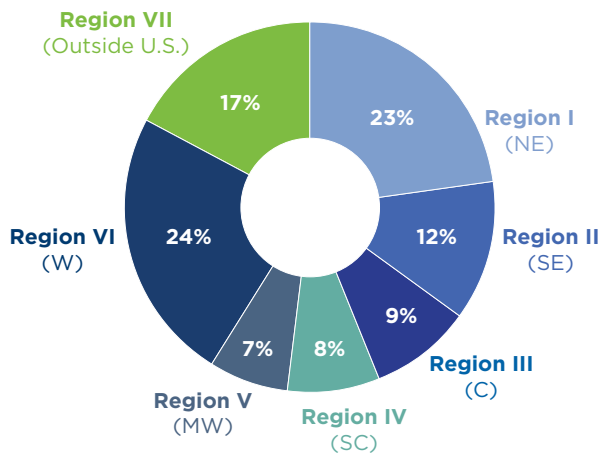
MEDIA HIGHLIGHTS

AIAA's Growing Social Media Footprint



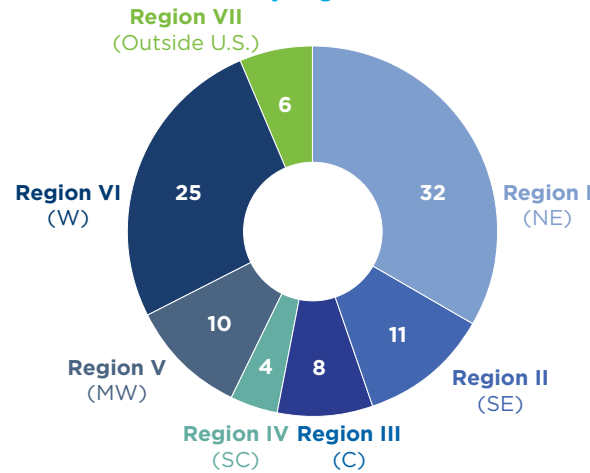
PERCENTAGE OF MEMBERSHIP

by Region



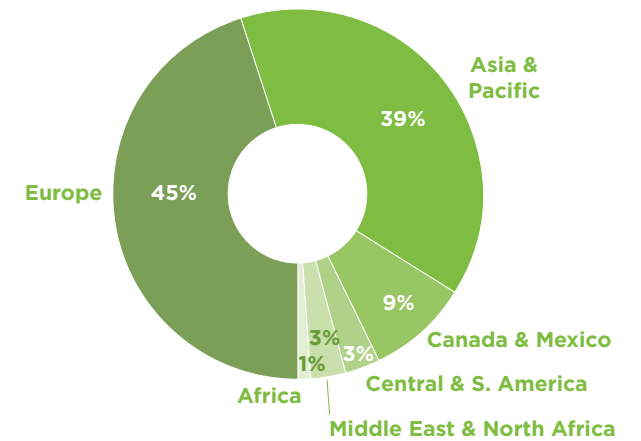
NUMBER OF CORPORATE MEMBERS

by Region



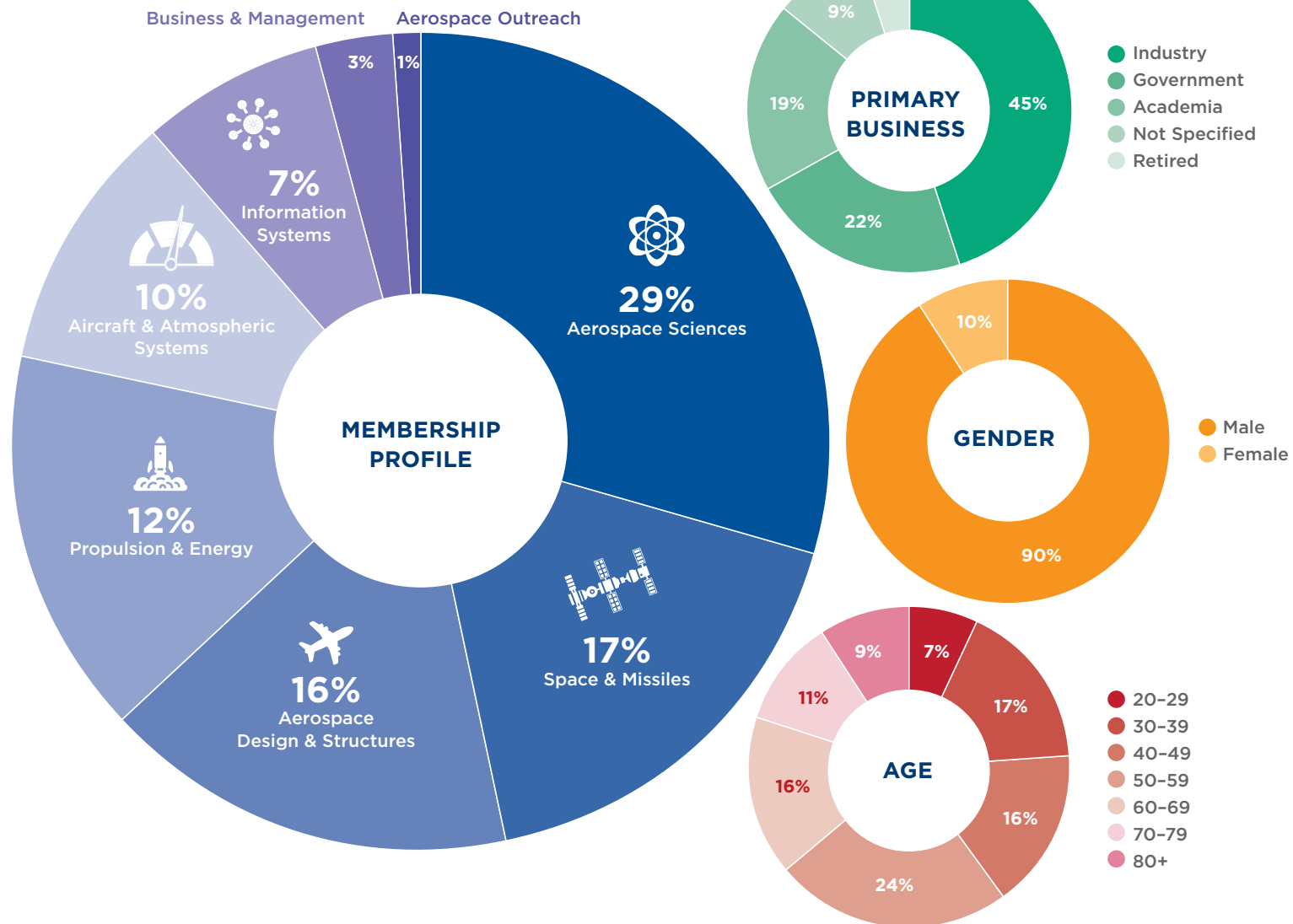
PERCENTAGE OF MEMBERSHIP

Region VII - International

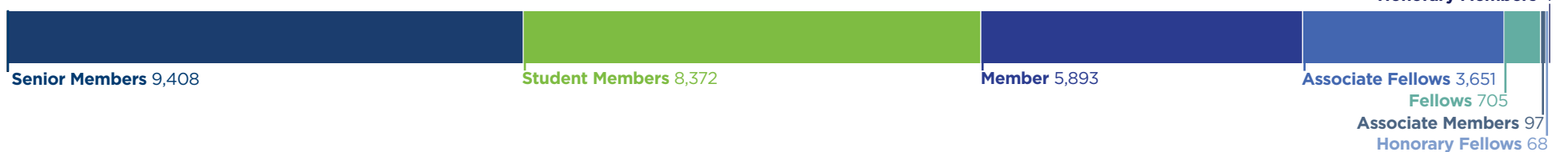


A SNAPSHOT OF AIAA CONTINUED

WHO WE ARE



MEMBERSHIP STATUS



EXECUTIVE REPORT

This past year, AIAA launched the 2018–2021 Strategic Plan, building on the governance transition that began in May 2017. Our mission is simple and clear: AIAA exists to help aerospace professionals and their organizations succeed. Moving forward, we are going to accomplish our mission and increase our membership and engagement by using data to make solid decisions, lead in curated aerospace content, and be the authority in technology and capability advancement. Our hard work is showing results. The Institute's volunteer leadership and staff are well on the way to transforming AIAA into an organization equipped to help guide the industry—and industry professionals—in addressing challenges and serving as a vital resource to our members.

Our institutional priorities are focused on the space economy, air mobility/autonomy, and transformative flight. We're listening to what you want from *your* Institute. Those priorities were on full display at AIAA's highly successful 2018 forums, which had a total of 5,200 technical presentations and convened more than 10,000 professionals and students.

Building a diverse workforce is a top priority for the industry. We hope you met some of the 70 Diversity Scholars pursuing degrees in aerospace who attended AIAA forums for the first time this year. These students from underrepresented groups are part of the Institute's Foundation-funded Diversity Scholars Program, which awards grants to bring the students to an AIAA forum with all expenses paid.

The forums help connect students and young professionals with established AIAA members because they're the place where top decision makers and trailblazers come to discuss technology, policy, and new directions. Here are just a few outstanding memories from this year's forums:

The 2018 AIAA SciTech Forum in Kissimmee, Florida, was a record breaker with 4,300 attendees from all 50 states and Washington D.C., as well as 39 countries. About 2,700 technical presentations were made. What began in 2014 by transforming 11 conferences into one dynamic forum has become *the* forum to discuss the latest innovations in aerospace.

AIAA STRATEGIC PLAN 2018–2021

MISSION

AIAA exists to help aerospace professionals and their organizations succeed

CORE STRATEGIES



DATA DRIVEN

Use the appropriate data in the analysis of decisions



CURATE CONTENT

Be the leader in curated aerospace content



THOUGHT LEADER

Be the thought leader in technology and capability advancement

GOALS



FINANCE GOAL

Assure financial sustainability



A: 3% Revenue growth
B: Diversified revenue



MEMBERSHIP GOAL

Increase member loyalty and investment



A: 87% Member retention
B: 3% Membership growth



ORGANIZATIONAL GOAL

AIAA's capacity will be sufficient to meet the needs of our members



A: Member data-driven decision making
B: Aligned volunteer activities with strategic plan

EXECUTIVE REPORT CONTINUED

AIAA DEFENSE Forum continues to grow, offering a classified setting for focused discussions on aerospace technologies and their applications in national security. AIAA AVIATION Forum showcased the first behind-the-scenes look at the design, development, and testing of the world's most advanced fighter aircraft, the F-35 Lightning. AIAA Propulsion and Energy Forum, the only international event to focus on aeronautics and space propulsion and energy technologies, drew standing-room-only attendance at hypersonics sessions and the AIAA/IEEE Electric Aircraft Technologies Symposium.

We're proud to have brought together six current and former NASA administrators at the 2018 AIAA SPACE Forum—the most to share a stage at the same time—to talk about the past, present, and future of the space agency. Current NASA Administrator James Bridenstine was joined by former NASA Administrators Charles Bolden (2009–2017), Daniel Goldin (1992–2001), Michael Griffin, (2005–2009), Sean O'Keefe, (2001–2005), and Richard Truly (1989–1992).

Engaging with elected officials and other government stakeholders is a key part of our strategic mission. AIAA members, especially young professionals, continue to be a force at Congressional Visits Day and help advocate for aerospace issues on Capitol Hill. Nearly 100 members from 28 states braved a snowstorm to visit 175 offices on 21 March 2018.

As AIAA executive director, I testified before the U.S. House of Representatives Subcommittee on Space in June 2018 for the “NASA's Cost and Schedule Overruns: Acquisitions and Program Management Challenges” hearing.

AIAA also partnered with the Aerospace Industries Association to hold an aerospace and defense workforce development summit on the Hill in October where we engaged with congressional members and staff, along with key stakeholders from the aerospace and defense industry, academia, government, and nongovernmental organizations. We discussed industry strategies for sustaining a dynamic workforce going forward.

AIAA is also working to stimulate corporate membership and partnerships with industry. The Corporate Member program has grown to 96 members. Our newest corporate members include RUAG, Calspan, M4 Engineering, General Atomics, and Moog. AIAA's leadership has made visits to many corporate headquarters over the past year to engage our industry partners and understand how we can be a resource to them.

It's no secret the best STEM education is one you can literally get your hands on and that's one reason why AIAA Foundation organizes Design/Build/Fly (DBF). The 22nd annual DBF in Wichita was another amazing competition of 77 teams. We produced our first video about the April event, which can be found on aiaaDBF.org. Check it out to see how much fun it is—and how much the team members learn. AIAA is proud to be an education sponsor of Team America Rocketry Challenge (TARC) where many future aerospace engineers get their first experience with rockets. Also, we awarded 372 FIRST® LEGO® League grants in 2018, up from 108 in 2017. These competitions help build our much-needed workforce. Thank you to our involved members!

AIAA's technical resources help our members succeed by giving them access to useful information that sparks new ideas and collaborations. Our members contribute to a wealth of research. In 2018 we published 989 articles in AIAA journals from a pool of 2,834 submissions. And Aerospace Research Central had nearly 1 million new users in 2018!

Last but certainly not least, we want to congratulate the 2018 Honorary Fellows: H. Norman Abramson of the Southwest Research Institute (retired); Charles Elachi from the Jet Propulsion Laboratory, California Institute of Technology; and Antony Jameson of Stanford University. We are grateful for how they have helped advance aerospace!

It's been a transformative time for the Institute, and it continues in 2019 when we'll be hosting the International Astronautical Congress in Washington, D.C. We look forward to seeing you there!



John S. Langford
President



Dan Dumbacher
Executive Director

HONORS AND AWARDS

AIAA continues to celebrate that pioneering spirit showcasing the very best in the aerospace industry.

- › Over **290 awardees** were recognized for their accomplishments.
- › Over **650 members** were honored with member advancement.
- › Nearly **80 AIAA members** were advanced to “Emeritus” status in appreciation of their **50 continuous years** of membership.
- › Over **50 technical papers** were given the designation “Best Paper” by the respective technical committee.
- › Over **50 AIAA sections** were recognized for overall excellence, effective communications, member recruitment, and successful programs.

Responding to recent survey comments, AIAA Honors and Awards enhanced its award promotion plan to include targeted direct announcement of achievement to the honoree’s/awardee’s supervisor or CEO, their professional contacts, and alma mater; to social news pathways or networks; and to other digital news outlets. While mobile recognition stations at forums and annual recognition of members for AIAA committee and activity participation still are important elements in the plan, AIAA’s awardees/honorees are now broadcast to a wider peer audience.

[More on Honors and Awards](#)



PUBLIC POLICY

AIAA continues to lead the way on issue advocacy that impacts our community. The Institute delivers extensive technical expertise and policy guidance to decision makers at the federal and state levels, serving as a reliable resource on a full spectrum of aerospace issues.

KEY ISSUES

Each year the Public Policy Committee (PPC) establishes key issues that are crucial to the continued health of our industry and of our nation. They provide the supporting pillars of the Congressional Visits Day (CVD) program, drive panel sessions at our annual forums, underpin our state-level advocacy efforts, and form the basis of smaller focused events and activities.

AIAA Public Policy Key Issues

CONGRESSIONAL OUTREACH

The Aerospace Industries Association (AIA) and AIAA partnered to host the 2018 National Aerospace & Defense Workforce Summit on **2 October 2018**. The summit engaged congressional staff and aerospace sector leaders in a discussion of industry strategies for developing a dynamic 21st-century workforce.

AIAA led a “Hypersonics 101” congressional briefing on **17 July 2018**. The session educated staffers about the extent to which our nation is ready to defend against hypersonic threats and the need for significant investments in these technologies.

AIAA’s 21st annual CVD program was held on **21 March 2018**. Despite a late winter storm, 94 members (a majority being students and young professionals) representing 28 states attended. State teams visited approximately 175 offices to help promote the Institute’s key issues.

On **26 September 2017**, AIAA joined AIA to sponsor a congressional briefing highlighting the importance of sufficient and sustained aerospace R&D investments. Approximately 80 House and Senate staff members attended the briefing that was hosted by the House Aerospace Caucus.

CONGRESSIONAL TESTIMONY

On **14 June 2018**, AIAA Executive Director Dan Dumbacher testified before the House Subcommittee on Space. The hearing, titled “NASA’s Cost and Schedule Overruns: Acquisitions and Program Management Challenges,” considered recommendations to help minimize challenges that lead to increased costs and schedule on NASA programs.

On **9 November 2017**, AIAA Executive Director Emeritus Sandy Magnus testified before the House Subcommittee on Space. The hearing, titled “An Update on NASA Exploration Systems Development,” examined the current state of our human spaceflight program.

AIAA Electric Propulsion Technical Committee Vice Chair and Georgia Institute of Technology Professor Mitchell Walker testified before the House Space Subcommittee on **29 June 2017**. The hearing, titled “In-Space Propulsion: Strategic Choices and Options,” explored NASA’s current portfolio of in-space propulsion technologies, the state of the various technologies, and how they fit into future space architectures.

PUBLIC POLICY NEWSLETTERS

As a benefit of your AIAA membership, we provide quarterly updates on public policy issues of relevance to the aerospace community.

Public Policy Newsletters

EDUCATIONAL MATERIAL

AIAA has developed fact sheets highlighting key aerospace statistics and assets in all 50 states plus the District of Columbia and Puerto Rico. The documents were distributed to and well received by lawmakers and staff during CVD and are a useful reference tool for members when educating policymakers at the federal, state, and local levels. Please contact Steve Sidorek at steves@aiaa.org to access the state fact sheets.



STUDENT ENGAGEMENT

AIAA currently has over 200 active student branches, including 43 international student branches, with a total active membership of over 8,000 students worldwide. Your student branch is your base of operations in AIAA during your university years, and it can help open doors to professional activities, recognition, and contacts that would otherwise be unavailable to students.

A small sampling of events from the seven regions illustrates the scope and diversity of the student branch events and the hard work of the students.

REGION I

The AIAA City College of New York (CCNY) Student Branch participated in the Engineering Awareness Day event hosted by the Grove School of Engineering, one of the student branch's biggest events of the year. The event was open to all active students, and the Mazen Alhirsh, student branch vice president, presented on AIAA's behalf. The dean of engineering and assistant dean attended the event to see what the clubs had to offer.

REGION II

In April 2018, a group of 25 students visited the Gulfstream facilities in Savannah, Georgia. Students were given the opportunity to view the G650 production line, hop onto a quasi-complete G650 unit, which is one of the world's most expensive business jets, and later drove to Gulfstream's Flight Test Center, where they repair and test an array of six to seven test aircraft. The lead scientist who gave the tour is a Georgia Tech graduate and was very pleased to have the group visit, giving them valuable recommendations on how to transition to the industry.

REGION III

In 2017 the AIAA Youngstown State University (YSU) Student had a successful inaugural year. In November, Joseph Connolly of the AIAA Northern Ohio Section University Committee and NASA Glenn Research Center gave a seminar on electrified aircraft.

REGION IV

The AIAA University of Texas at El Paso Student Branch is a great example of how students give back to their community. The students volunteered to go into the Franklin Mountains at McKelligon Canyon to clean up the area leading up to the canyon. The students were among thousands who participated in community service projects all around the El Paso area. The student branch has made this into a yearly event.

REGION V

The student branch at the University of Colorado Boulder provides many opportunities for students to network and obtain information on career opportunities such as internship possibilities and industry recruiting events.

REGION VI

The AIAA Utah State University (USU) Student Branch engages students at an early stage to point their attention toward engineering. The student branch set up a K-12 outreach booth at the USU College of Engineering's E-Week Community Night event where volunteers used a vacuum chamber to boil water and expand shaving cream and marshmallows.

REGION VII

The AIAA Adelaide University Student Branch was very active this year beginning with attendance at the Adelaide University O'Week recruitment event in February 2018. The student branch held two on-campus barbeques in the first half of 2018 to recruit new members. Other events included Yuri's Night, a member's site trip to the Adelaide Wind Tunnel, and an industry night with speakers from Adelaide-based engineering companies that handle aerospace-related work.

[More on Student Branches](#)



PUBLICATIONS BY THE NUMBERS

AIAA's current technical publications include eight journals, three book series, conference proceedings, domestic and international standards documents, a growing number of eBooks and other electronic products, and a full-service, interactive website, Aerospace Research Central. Providing access to state-of-the-art content, exposing emerging trends in technology, and preserving our history by supporting AIAA's publications archives represent a major focus of the Institute. Here are details showing current levels of impact and engagement across publications.

JOURNALS 2017

Total Number of Articles Published in all Journals: 1,406
An increase of 158 articles over 2016

JOURNALS 2018*

Number of Original Manuscripts Submitted: 2,834
Number of Manuscripts Rejected: 1,468
Number of Articles Published in all Journals: 989
**Through 31 October 2018*

MEETING PAPERS 2018*

Total Number of Abstracts Submitted: 6,661
Total Number of Abstracts Rejected or Withdrawn: 2,041
Total Number of Papers Published in Conference Proceedings: 4,620
** SciTech, AVIATION, Propulsion and Energy, and SPACE forums, and the International Communications Satellite Systems Conference (ICSSC)*

AEROSPACE RESEARCH CENTRAL (ARC) 2017

1.33M Total Visitors
1.29M New Users
7.43M Page Views

Top three Countries:

USA 27%
China 9.78%
India 8.06%

AEROSPACE RESEARCH CENTRAL (ARC) 2018*

1.029M Total Visitors
986,991 New Users
5.56M Page Views

Top three Countries:

USA 29%
China 8.4%
India 7.74%

**Through 31 October 2018*

STANDARDS DOCUMENTS 2018

Total Number of Documents Published: 3
Number of Active Committees on Standards: 13

BOOKS 2018

Total Number of New Titles Published: 8
Total Number of Existing Titles Reprinted: 35
Total Number of New Publishing Agreements Signed: 10

[More on Journals, Publications, and Standards](#)

FORUMS

Events Summary June 2017 – December 2018

AIAA forums continue to bring the aerospace community together around critical topics, providing relevant programming and opportunities for valuable networking.

[More on AIAA Forums](#)



2017 AIAA AVIATION FORUM

5-9 June 2017, Denver, CO
aviation.aiaa.org/archive2017

2,800+
ATTENDEES

1,500+
MEETING PAPERS

38+
COUNTRIES

ITAR
SESSIONS

2017 AIAA PROPULSION AND ENERGY FORUM

10-12 July 2017, Atlanta, GA
propulsionenergy.aiaa.org/2017archive

1,100+
ATTENDEES

500+
MEETING PAPERS

33+
COUNTRIES

ITAR
SESSIONS

2017 AIAA SPACE FORUM

12-14 September 2017, Orlando, FL

Due to Hurricane Irma, AIAA cancelled the forum. Paper authors were offered the opportunity to have their paper published without having to present it due to these circumstances, and the majority decided to publish, with only 28 deciding to withdraw so that their papers could be presented at another time and location. There were 379 abstracts submitted, and 249 technical papers published.
aiaa.org/SPACE-forum-archives

2018 AIAA SCITECH FORUM

8-12 January 2018, Kissimmee, FL
scitech.aiaa.org/2018archives

4,300
ATTENDEES

2,700+
MEETING PAPERS

39+
COUNTRIES

31%
GOVERNMENT

FORUMS CONTINUED

More on AIAA Forums



2018 AIAA DEFENSE FORUM

8-10 May 2018, Laurel, MD

defense.aiaa.org/FinalProgramArchives



250+
ATTENDEES



65+
TECHNICAL
BRIEFINGS



SECRET
/NoFORN

2018 AIAA AVIATION FORUM

25-29 June 2018, Atlanta, GA

aviation.aiaa.org/2018archives



2,800+
ATTENDEES



1,600+
MEETING
PAPERS



40+
COUNTRIES



ITAR
SESSIONS

2018 AIAA PROPULSION AND ENERGY FORUM

9-11 July 2018, Cincinnati, OH

propulsionenergy.aiaa.org/archives



1,400+
ATTENDEES



950+
MEETING
PAPERS



29+
COUNTRIES



ITAR
SESSIONS

2018 AIAA SPACE FORUM

17-19 September 2018, Orlando, FL

aiaa.org/SPACE-forum-archives



1,000+
ATTENDEES



400
MEETING
PAPERS



35%
MANAGEMENT



31%
GOVERNMENT

TECHNICAL AND OUTREACH COMMITTEES

Among the innovative and collaborative activities from the Technical Activities Division (TAD) and Integration and Outreach Division (IOD) committees in the past year and a half:

- › The first **Electric Aircraft Technologies Symposium** (EATS) developed by the Aircraft Electric Propulsion and Power Working Group (a collaboration between members of the AIAA Green Engineering Technical Committee, AIAA Energy Optimized Aircraft Integration Committee, and IEEE Transportation Electrification Community) was successfully hosted in conjunction with the 2018 AIAA Propulsion and Energy Forum. It was a popular draw, with over 100 participants.
- › The **Integrated Computational Materials Engineering Working Group** (made up of members of Materials, Multidisciplinary Design Optimization, Nondeterministic Approaches, and Structures technical committees and the Digital Engineering Integration Committee) presented the first ICME Prize and its \$1,500 honorarium at the 2018 AIAA SciTech Forum to a team from Michigan Technical University and NASA Glenn Research Center.
- › The first **Transformational Electric Flight Workshop and Expo** at the 2017 AIAA AVIATION Forum was the collaborative brainchild of the AIAA Transformational Flight Integration Committee, AHS, SAE, and the NASA Transformative Vertical Flight Workshop. Participants learned about many of the exciting developments in the aeronautics field occurring because of electric propulsion. From small unmanned aircraft to personal transportation to high-altitude long-endurance unmanned aircraft to commercial transports, electric propulsion technologies are opening up new missions and beginning to revolutionize traditional missions.
- › The first **AIAA Geometry and Mesh Generation Workshop** at the 2017 AIAA AVIATION Forum was offered in conjunction with the 3rd AIAA CFD High Lift Prediction Workshop. The workshop's test case was a simplified version of the NASA's High Lift Common Research Model (HL-CRM) being used for the High Lift Workshop. Workshop participants were asked to collect and report data about their experience meshing the HL-CRM geometry.

- › Members of the **Society and Aerospace Technology Integration Committee** exhibited at the 2018 Phoenix Comic Fest in Phoenix, AZ, where they also took part in a panel for STEM Resources for Arizona Educators.
- › The members of the **Structural Dynamics Technical Committee** have created "Smart Materials and Structures" kits for local students at the ASME Smart Materials, Adaptive Structures and Intelligent Systems (SMASIS) Conference and elsewhere.
- › The **General Aviation** and **Modeling and Simulation Technical Committees** hosted receptions for recruiting young professionals at the 2018 AIAA AVIATION Forum to allow them to meet seasoned practitioners and learn what committee membership could mean to their career.
- › The **Intelligent Systems Technical Committee** provided funds for STEM outreach programs associated with the Digital Avionics Systems Conference in London in September 2018.

More details of the Technical and Outreach and Integration Committees work throughout the year is provided in the *Aerospace America*: "Year in Review" December issue.

[More on Committees](#)

TECHNICAL AND OUTREACH COMMITTEES

CONTINUED

NEW COMMITTEES AND GROUPS

- › **CFD Vision 2030** was established within IOD to promote a community of practice engaged in developing methods, models, physical experiments, software, and hardware for revolutionary advances in computational simulation technologies for analysis, design, certification, and qualification of aerospace systems.

COMMUNITIES OF INTEREST

AIAA Engage (engage.aiaa.org) is the new community online platform that connects all AIAA members in the Open Forum and allows private workspace for the committees of the Council. Communities of Interest (COI) are also encouraged to use the platform to start discussions or work groups. Since AIAA Engage was launched in January 2018, we have seen the rise of several innovative COIs:

- › **Certification/Qualification by Analysis** — An international team focused on developing high-level guidelines for predictive processes and simulations as a means of compliance for aircraft regulatory certification to safely improve efficiency.
- › **Complex System Sustainment** — A focused community to develop and share sustainment best practices.
- › **Integrating the Aerosciences Toolkit Community** — A clearinghouse and catalog of workforce development initiatives and a discussion board to identify significant gaps not being addressed.

More on Committees



REGIONS AND SECTIONS

AIAA's 7 regions and 57 sections, governed by the Regional Engagement Activities Division, hold activities continually across the country and around the world. These events support members by AIAA providing opportunities to exchange information, build professional relationships, mentor young professionals, reach out to their nearby student branches, and support their local community. A small sampling of events from the seven regions exemplifies the scope and diversity of the many events and hard work of members in the field.

REGION I

The AIAA Delaware Section hosted a yearlong project with a local elementary school that culminated in a live education downlink from astronaut Jack Fischer on the International Space Station. The students were kept updated for months on the status of the ISS and Jack Fischer's activities. During the event, 20 students were chosen to ask Fischer questions.



Students in the AIAA Delaware Section ask questions of Astronaut Jack Fischer on the International Space Station

REGION II

In May, the AIAA Savannah Section held their annual Golf Tournament, a Young Professional and fundraising event. Members and nonmembers from a wide range of disciplines mingled and networked while enjoying a morning of golf. Multiple hole-in-one prize sponsorships were obtained from J.C. Lewis Ford of Savannah, including the opportunity to win a \$30,000 car!



AIAA Savannah Section Young Professionals enjoying the fundraiser

REGION III

Despite a snowy government shutdown, several members of the AIAA Michigan Section attended Congressional Visits Day and were able to visit seven of their state's congressional representatives.



Members of the AIAA Michigan Section during their visit to Capitol Hill

REGION IV

AIAA Southwest Texas Section member Michael Frye facilitated Mars Rover Missions as part of the University of the Incarnate Word miniGEMS STEAM and Programming summer camps for local girls in grades 6-8. Campers designed and built their rovers using a Lego EV3 kit to conduct a specific mission on Mars.



Campers from the San Antonio area who participated in the AIAA Southwest Texas Section's Mars Rover Mission.

REGION V

In December the AIAA Wichita Section held an Engineers as Educators Workshop with over 30 attendees. Engineers were trained to teach a 50-minute lesson to a class of students. Lessons included magnetism, problem-solving building of tools and structures, rocket propulsion, and acid corrosion. Volunteers came from airplane manufacturers Textron Aviation, Spirit, Bombardier, and Wichita State University. This year the volunteers also included some test pilots.



Attendees listen raptly at the AIAA Wichita Section's Engineers as Educators Workshop.

REGION VI

The AIAA Los Angeles-Las Vegas Section sponsored a student branch mini-conference in March. All four local student branches participated, along with major industry contractors and STEM education professionals, as attendees and presenters. Presenters from the companies described what they do, how students might apply to work there, and provided networking opportunities for the students. In addition to sessions, there were also booths set up by the conference participants to showcase their areas.



Attendees listen to a presentation at the AIAA Los Angeles-Las Vegas Section Student Branch Mini-Conference.

REGION VII

The AIAA Sydney Section hosted a series of public outreach events called Astronaut Stories Australia in multiple cities. Each city hosted an astronaut who was a keynote guest/speaker in both a STEM event as well as a large public lecture (titled From STEM to Space and An Evening of Astronaut Stories, respectively).



Former ESA astronaut Christer Fugelsang speaking to a packed house as part of the AIAA Sydney Section's Astronaut Stories Australia lecture tour.

More on Regions and Sections

CONTINUING EDUCATION

In 2018, in conjunction with all five forums, AIAA held 20 continuing education courses and workshops with 604 total registrants. These included new courses such as Design of Electric and Hybrid-Electric Aircraft, Integrating Program Management and Systems Engineering, Missile Aerodynamics, Aeroelastic Wind Tunnel Testing, and Aerospace Survivability.

AIAA's new Online Learning program hosted with 13 DirectTech Webinars between November 2017 and October 2018. A total of 539 registrants took advantage of these new offerings with topics such as Introduction to Computational Aerodynamics, Thermal Modeling and Regenerative Cooling of Liquid Rocket Engines, Aircraft and Rotorcraft System Identification Engineering Methods for UAV Applications, and Materials and Structures for Hypersonic Vehicles.

In October 2018, AIAA launched our first Online Short Course on Hypersonic Air-Breathing Propulsion, which garnered over 160 registrants.

[More on Continuing Education](#)



CONSOLIDATED FINANCIAL STATEMENTS

AIAA & AIAA Foundation

STATEMENT OF FINANCIAL POSITION

(in thousands)

Years ended 30 September
2018 2017

	2018	2017
Assets:		
Cash and cash equivalents	\$ 3,177	\$ 3,160
Investments	49,807	46,339
Accounts receivable, net	197	188
Pledges receivable, net	2	3
Prepaid expenses and other current assets	1,113	623
Inventory	9	63
Beneficial interest in trusts	1,163	1,579
Fixed assets, net	1,133	1,333
Total Assets	<u>\$ 56,601</u>	<u>\$ 53,288</u>
Liabilities:		
Accounts payable and accrued expenses	\$ 4,523	\$ 3,989
Deferred member dues	2,696	2,678
Deferred subscriptions	2,189	1,964
Deferred sponsorship, meeting, and other	1,834	1,285
Other liabilities	35	40
Total liabilities	<u>11,277</u>	<u>9,956</u>
Net assets:		
Unrestricted net assets	39,750	38,112
Temporarily restricted net assets	3,962	3,608
Permanently restricted net assets	1,612	1,612
Total net assets	<u>45,324</u>	<u>43,332</u>
Total liabilities and net assets	<u>\$ 56,601</u>	<u>\$ 53,288</u>

STATEMENT OF ACTIVITIES

(in thousands)

Years ended 30 September
2018 2017

<i>Change in unrestricted net assets:</i>		
Revenue		
Member services	\$ 3,586	\$ 3,749
Technical publications	8,770	9,209
Outreach	66	65
Technical activities	6,617	6,027
Professional development	321	245
Strategic plan initiatives and business development	90	30
Revenues before investment return, contributions and net assets released from restriction	<u>19,450</u>	<u>19,325</u>
Investment return	2,772	5,184
Contributions	519	506
Net Assets released from restriction	738	7,162
Total revenue	<u>23,479</u>	<u>32,177</u>
Expenses		
Program services:		
Member services	3,258	3,366
Education	471	241
Technical publications	3,858	4,197
Outreach	1,564	1,461
Technical activities	4,719	4,610
Professional development	314	172
Strategic plan initiatives and business development	2,326	1,317
Other program services	625	1,433
Custodial program	35	27
Fundraising	62	46
General and administrative	4,571	4,611
Total expenses before investment expenses	<u>21,803</u>	<u>21,481</u>
Investment expenses	38	35
Total expenses	<u>21,841</u>	<u>21,516</u>
Change in unrestricted net assets	1,638	10,661
<i>Change in temporarily restricted net assets:</i>		
Investment return	223	408
Contributions and change in fair value of beneficial interest in trusts	756	(275)
Custodial program contributions	113	31
Net assets released from restriction	(738)	(7,162)
Change in temporarily restricted net assets	<u>354</u>	<u>(6,998)</u>
Net change in net assets	1,992	3,663
Net assets, beginning of year	43,332	39,669
Net assets, end of year	<u>\$ 45,324</u>	<u>\$ 43,332</u>

CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

AIAA & AIAA Foundation

STATEMENT OF CASH FLOWS

(in thousands)

Years ended 30 September
2018 2017

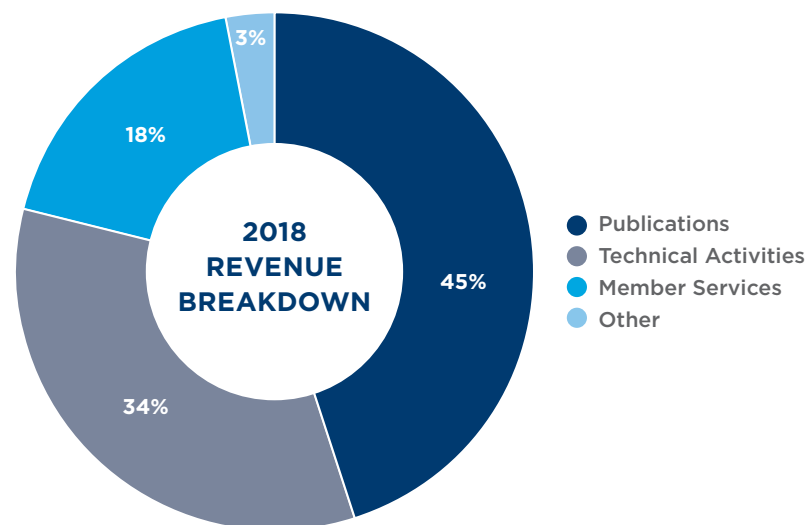
Cash flows from operating activities

Net change in net assets	\$ 1,992	\$ 3,663
Adjustments to reconcile change in net assets to net cash provided by (used in) operating activities:		
Depreciation and amortization	249	434
Net realized and unrealized gain on investments	(1,733)	(4,509)
Changes in operating assets and liabilities:		
Accounts receivable, net	(9)	170
Pledges receivable, net	1	3
Beneficial interest in trusts	416	7,457
Prepaid expenses and other current assets	(490)	252
Inventory	54	(22)
Accounts payable and accrued expenses	534	(76)
Other liabilities	(5)	(16)
Deferred revenue	792	445
Net cash provided by operating activities	1,801	7,801

Cash flows from investing activities

Proceeds from the sale of investments	1,438	8,814
Purchases of investments	(3,174)	(15,639)
Purchases of fixed assets	(48)	(58)
Net cash used in investing activities	(1,784)	(6,883)

Net change in cash and cash equivalents	17	918
Cash and cash equivalents, beginning of year	3,160	2,242
Cash and cash equivalents, end of year	\$ 3,177	\$ 3,160



	Consolidated Total Assets	Consolidated Operating Revenue	Consolidated Net Assets
2018	56,601	19,450	45,324
2017	53,288	19,325	43,332

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AIAA FOUNDATION

The AIAA Foundation prides itself on its commitment to the continued study of science, technology, engineering, and mathematics. This commitment is not possible without the support and generosity of our esteemed donors. Your beneficence guarantees the continued success and growth of our K-12 educational programs, and encourages participation in hands-on activities, technical competitions, scholarships, conferences, and so much more.

AIAA is committed to addressing our industry's long-running diversity imbalance. Aerospace and defense leaders agree "the best solutions and the most creativity come from teams composed of people with different backgrounds, different experiences and different educations," according to the 2018 Aviation Week Workforce Study, which was detailed during a workforce summit co-hosted by AIAA on Capitol Hill. Our programming strives to meet this challenge by encouraging participation in all of our educational activities.

In 2018, the AIAA Foundation implemented the Diversity Scholars Program, inviting students of diverse backgrounds to experience AIAA forums, providing a first-hand look at the excitement of the aerospace industry. Seventy students participated in the first year and we look forward to increasing the number of participants.

Hands-on experience is what many current aerospace professionals cite as starting them on their career path. AIAA members are demonstrating their dedication to inspiring the next generation of aerospace trailblazers by coaching and mentoring middle school students in the FIRST® LEGO® League. This year we awarded 372 grants, up from 108 in 2017. The AIAA Foundation also organized its 22nd annual Design/Build/Fly Competition (aiaadb.org) where 77 teams designed, built, and tested a dual-purpose regional and business aircraft.

Our ever-growing list of undergraduate scholarships and graduate awards has increased by two this year, thanks to the generosity of AIAA President John Langford and Dr. Hassan A. Hassan. Langford established the Daedalus 88 Undergraduate Scholarship, commemorating the 30th anniversary of the flight of Daedalus, which set a distance record in human-powered flight. Hassan established the Dr. Hassan A. Hassan Graduate Award in Aerospace Engineering to assist North Carolina State University (NCSU) aerospace engineering seniors who plan to attend NCSU for a graduate degree in aerospace engineering.

In addition, the David W. Thompson Lecture in Space Commerce Award was sponsored and endowed by Orbital ATK (now Northrop Grumman Innovation Systems) to commemorate the long and distinguished career of commercial space pioneer David W. Thompson, who is the endower of the David and Catherine Thompson Space Technology Scholarship.

2018 has been a busy and productive year. AIAA members are taking action to transform the aerospace community. It's this can-do spirit that has long fueled this amazing field. With your help, we will continue to advance aerospace in the coming years.



Jim Maser
Chair, AIAA Foundation

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AIAA FOUNDATION CONTINUED

CLASSROOM GRANTS

2017: 40 grants of \$250 given; approx. 7,808 students impacted

2018: 40 grants of \$250 given; approx. 9,250 students impacted

GENERATION STEM

2017: 200 students participated (only one program due to Hurricane)

2018: 400 students participated (two programs)

AEROSPACE MICRO-LESSONS

2017: 23 new lessons distributed; 78,681 emails delivered to educators

2018: 22 new lessons distributed; 78,066 emails delivered to educators

DESIGN COMPETITIONS (Graduate and Undergraduate)

2017: 8 competitions, 65 teams participated; 406 individual student participation

2018: 7 competitions; 58 teams participated; 420 individual student participation

DESIGN/BUILD/FLY

2017: Participation - 73 universities; 743 students

2018: Participation - 77 universities; 720 students

STUDENT CONFERENCES

2017: 8 conferences; 556 students participated; 232 presentations

2018: 7 conferences; 651 students participated; 208 presentations

DIVERSITY SCHOLARS

2018: 70 scholars honored

FIRST® LEGO® LEAGUE GRANTS

2017: 108 awarded

2018: 372 awarded

UNDERGRADUATE SCHOLARSHIPS

2017: 11 awarded; \$28,750

2018: 12 awarded; \$43,750

GRADUATE AWARDS

2017: 8 awarded; \$24,500

2018: 9 awarded; \$25,500

Make an Impact





American Institute of Aeronautics and Astronautics

12700 Sunrise Valley Drive, Suite 200, Reston, VA 20191-5807
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