

30 JULY - 1 AUGUST 2024

EVENT RECAP













THANK YOU

The latest aircraft, spacecraft, technologies, and missions were on display in Las Vegas, 29 July–2 August. We co-located two of our signature events – 2024 AIAA AVIATION Forum and 2024 ASCEND – in one venue, Caesars Forum, for the week. We are grateful for so much support from AIAA individual members, Corporate Partners and Members, sponsors and exhibitors, and new faces from across our community.

We are excited to share the many dimensions of both of these events in this combined recap document. You will gain insights from the numbers that describe the week, as well as appreciate the attendee experience through the quotes, photos, videos, and social media engagement that are included here.

By the Numbers

Over **3,700** attendees, including **700+** students representing **43** countries, **75+** exhibitors in **12,500** square-foot Expo Hall – AIAA's largest exposition ever, **298** technical sessions and nearly **1,300** technical presentations, **350+** speakers, **10** AIAA awards presented, **16** prospective employers, and approx. **175** job seekers at Meet the Employers.

Deep Technical Exchange in Aeronautics and Space Domains

One of the hallmarks of an AIAA event is the deep technical exchange as a result of the vast number of technical papers that are presented. We are honored to showcase so many authors from across the aeronautics and space domains. Nearly 1,300 papers were presented during 298 technical sessions at both events. Awards were presented for the best papers presented by students throughout the AIAA AVIATION Forum, based on assessments by industry professionals.



2024 AIAA AVIATION Forum Highlights

- Increased dialogue on and demonstration of alternate aircraft propulsion – electrified aircraft, sustainable fuels, hydrogen propulsion
- Introduction of autonomy and artificial intelligence (AI) to aircraft design, and accelerating the use of digital twins
- Deeper looks at new and novel aviation concepts blended-wing body concepts, hybrid electric cargo drones, rigid airships, X-planes
- The challenges and opportunities around introducing electric air taxis in highly populated areas, including tackling noise problems
- Anticipated flight tests of demonstrator aircraft, including supersonics
- Integrating new aircraft into the airspace and creating the infrastructure required to support them and connect to other forms of transportation
- Rapidly advancing electric flight and propulsion for all sizes of aircraft
- > Mapping out a plan for aviation to meet net-zero 2050 goals

2024 ASCEND Highlights

- > Leveraging both government and commercial capabilities to push the frontier
- Building a sustainable space economy, tapping into venture capital and building partnerships with allies and international partners
- Discussions around innovation, ideas, and challenges for lunar infrastructure – landers, rovers, habitats, mining, regolith management, power sources – for Artemis missions and beyond
- > Exploring the opportunities to explore Mars, including discussion on Mars Sample Return missions
- > Pushing toward new applications of In-space Servicing, Assembly, and Manufacturing (ISAM), robotics, and developing capabilities in cislunar space
- Addressing the growing threat of space debris to orbiting assets, including human-rated spacecraft
- > ASCEND's Diverse Dozen Op-Eds tackled space sustainability and environmentalism with support from the Office of Space Commerce, NOAA, U.S. Department of Commerce
- > Planning for an integrated space defense strategy to maintain U.S. leadership in space with senior defense leaders from the U.S. and its allies
- > Incorporating AI in space-related applications











Unique Features

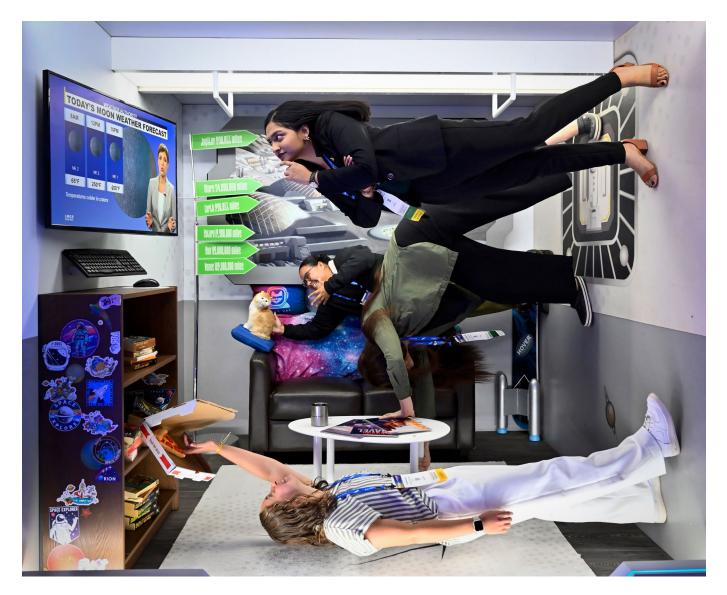
In a truly unique session designed to attract audiences of both air and space professionals, NASA showcased an unprecedented assembly of NASA technology. NASA Chief Technology Officer A.C. Charania hosted the session featuring all NASA field center chief technologists.

Science fiction and reality met on stage through a panel discussion between actors from the *Star Trek* television series and aerospace industry professionals. They explored the transformative power of art, technology, and reality, illustrating that science fiction engages the imaginations of today's aerospace community.

Looking Toward the Future

Plans are already underway for next year's events in Las Vegas: 2025 AIAA AVIATION Forum, 21-25 July 2025, and 2025 ASCEND, 22-24 July 2025. We hope to see you there!

Thank you for bringing our themes to life, bridging the gap between aviation's visionary concepts and tangible technological reality, while also accelerating our off-world future through collaboration.



A COMMUNITY OF INNOVATORS







75+



Countries



287 TECHNICAL SESSIONS

1,279 PAPER PRESENTATIONS



Top Companies/Employers Represented:

1. NASA

- 2. The Boeing Company
- 3. Lockheed Martin
- 4. Northrop Grumman
- 5. JHUAPL
- 6. AFRL

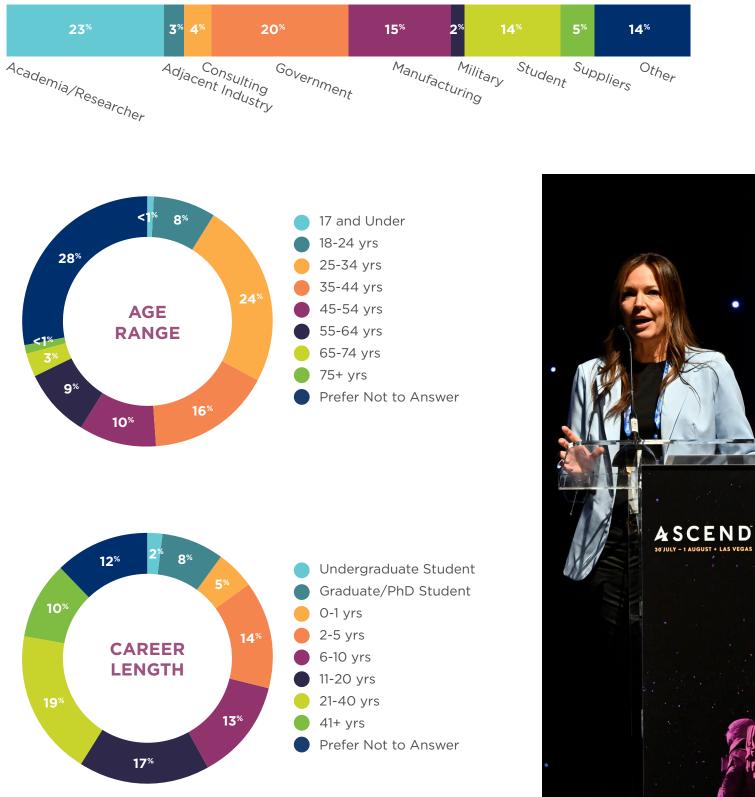
Top Colleges and Universities Represented:

- 1. Georgia Institute of Technology
- 2. University of California (System)
- 3. Purdue University
- 4. Texas A&M University
- 5. University of Texas (System)
- 6. New Mexico State University



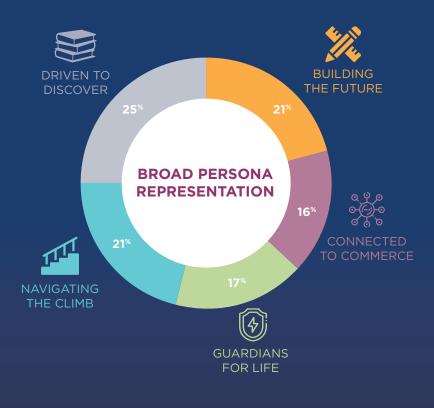
AUDIENCE DEMOGRAPHICS

INDUSTRY SECTOR



Powered by ØAIAA





BUILDING THE FUTURE: Interested in tools and technology and eager to gain hands-on experience to solve

problems or enhance career.

CONNECTED TO COMMERCE:

Building strategic partnerships and connecting with fellow business people and policy leaders; selling a product or service with significant impact on the space economy.

DRIVEN TO DISCOVER: Lifelong learner and teacher; exploring the intersection of science and technology and developing the next

big ideas in space.

GUARDIANS FOR LIFE: Years of experience building space programs that impact society, committed to investing in meaningful change.

NAVIGATING THE CLIMB: Long, ambitious career ahead, looking for a breadth of ideas, connections, and experiences that will launch to the next level.

IMPACT & REACH















Credentialed Media



Social Media Influencers

Erika Armstrong **@A Chick in the Cockpit**

Lauren Savage @laurenthesavage

Featured on Instagram







Top Industry News Articles

Intuitive Machines seeks to take over NASA's VIPER lunar rover - SpaceNews - Jeff Foust, August 13, 2024

<u>Podcast: Sustainable X-Planes, Lunar</u> <u>Infrastructure & More At AIAA In Vegas | Aviation</u> <u>Week Network</u> - Guy Norris, Garrett Reim, Graham Warwick, August 9, 2024

Ampaire To Flight Test 100% SAF In Hybrid-Electric Caravan | Aviation Week Network -Graham Warwick, August 6, 2024

<u>New commercial space traffic system debuts</u> soon, on heels of DoD, Commerce data sharing pact - Breaking Defense - Theresa Hitchins, August 5, 2024

Intuitive Machines and SEOPS partner on lunar rideshare services - Space News - Jeff Foust, August 5, 2024

<u>Indian astronauts to start training for ISS mission –</u> <u>Space News</u> - Jeff Foust, August 3, 2024

NASA retaining plans to select a single Artemis lunar rover - SpaceNews - Jeff Foust, August 2, 2024

NASA to soon resume awards of lunar lander missions - SpaceNews - Jeff Foust, August 2, 2024

<u>SDA is set to award satellite servicing contracts -</u> <u>SpaceNews</u> - Debra Werner, August 1, 2024

<u>Vast offers microgravity lab space on Haven-1</u> <u>station - SpaceNews</u> - Jeff Foust, August 1, 2024 ASCEND panel cites AI challenges and promise -SpaceNews - Debra Werner, August 1, 2024

<u>Japan's expanding role in space domain awareness</u> <u>- SpaceNews</u> - Debra Werner, August 1, 2024

<u>Contestants in this emergency response</u> <u>competition just learned what their aircraft</u> <u>must do</u> - Aerospace America (aiaa.org), Paul Brinkmann, August 1, 2024

<u>Study finds space industry growth uncorrelated to</u> <u>larger markets - SpaceNews</u> - Jeff Foust, July 31, 2024

<u>Companies describe studies to revise Mars Sample</u> <u>Return - SpaceNews</u> - Jeff Foust, July 31, 2024

Broadcast 4237 Hotel Mars featuring Dr. David Livington | The Space Show - David Livingston, July 31, 2024

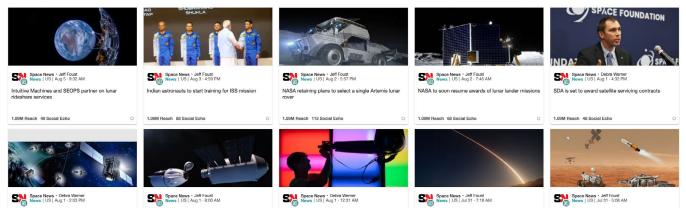
<u>U.S. must continue to innovate to maintain</u> <u>leadership in space, NRO director says</u> - Press Release Article, July 30, 2024

NASA Additive Manufacturing Project Shapes Future for Agency, Industry Rocket Makers - NASA (award presented at ASCEND), August 1, 2024

T-Minus podcast with Dan Dumbacher before the event: <u>https://space.n2k.com/podcasts/t-minus/319</u>

KSNV-TV: <u>Aerospace Leaders and Experts</u> <u>Meet in Las Vegas to Talk About the Future of</u> <u>Space</u> (news3lv.com) (Kevin Bell, The Aerospace Corporation and Dan Dumbacher)

Featured Mentions Jul 21 - Aug 13



SPONSORS & SUPPORTERS

AIAA would like to thank the following organizations for their support of 2024 AIAA AVIATION Forum and 2024 ASCEND.





SEE YOU IN 2025! AVIATION & ASCEND 21-25 JULY 2025 | LAS VEGAS | 22-24 JULY 2025

aiaa.org/aviation | ascend.events

Interested in Sponsoring or Exhibiting at the 2025 events? Reach out to our team!

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