AEROSPACE

ORBITER NEWS

News, announcements, and more.

Pride Month Showcases the Power of Unity

May 30, 2024

Throughout the year, ALA's leadership and members work toward strengthening a sense of community at Aerospace. Their efforts include hosting activities and networking opportunities for employees as well as participating in outreach events like the Employee Resource Expos.

Empowering employees to be themselves through community building and celebration is an important aspect of Aerospace's culture, inspiring a sense of belonging and encouraging collaboration. Through events like June's Pride Month, hosted by Aerospace Lambda Alliance (ALA), employees have the opportunity to gather as one, showcasing the ways they support and care for one another and the LGBTQ+ community.

"For me, a big part of Pride Month is coming together, whether in-person or not, with your queer siblings and allies," said Addison Green, Secretary of ALA. "It's about celebrating each other throughout the month and the reminder that the community is there."

LGBTQ+ Pride Month is recognized annually across the country during the month of June, commemorating the Stonewall Uprising of 1969, a pivotal moment in the Gay Liberation Movement. One year after the riot, on June 28, 1970, the first Pride march was held, taking place in New York City. Since then, the first parade has inspired annual parades in cities across the world, recognizing the LGBTQ+ community and the progress made over the decades.

"Pride Month is a celebration of the progress that we've made together," said Jeffery Smedley, Co-Vice President of ALA. "It's a radically different world that we live in today compared to even 20 years ago. We don't live with the same level of stigma that we did before, and this is a celebration of saying, 'Hey, we've arrived.'"

Coming Together

Throughout the month of June, ALA has planned a variety of events to celebrate and explore this year's theme of "CommUNITY." The events are open to all employees and are intended to provide a welcoming environment for colleagues to join together:

- **Book Club**: Since March, ALA has partnered with Aerospace Military Veterans (AMV) to host group book club meetings to discuss *The History of Gay Washington*. On June 13, the group will be meeting to discuss the section covering the chapters for "Reagan," and on June 27, the sections for "Bush Sr." and "Clinton".
- **Giving Campaign**: Giving back to LGBTQ+ organizations is an essential aspect of ALA's Pride Month activities. Through a campaign with Aerospace Cares, employees can support five organizations which provide life-saving support, advocacy, and emergency resources for at-risk members of the LGBTQ+ community, in addition to fostering and creating community space for LGBTQ+ youth.
- **Conference Nominations**: Employees are encouraged to nominate themselves or a colleague for the Out in Science, Technology, Engineering, and Mathematics (oSTEM) awards.
- **Respect in the Workplace Panel**: On June 20, ALA will host a panel featuring pride group representatives from space industry companies, including Raytheon and Millennium Space Systems. Aerospace employees are encouraged to join in and watch online ensuring everyone can learn more about the greater aerospace industry's LGBTQ+ community.
- **Ice Cream Socials**: On June 26, ALA will host Ice Cream Socials on campus in El Segundo, Colorado Springs and Chantilly. In El Segundo and Colorado Springs, the socials will take place from 1-2 pm PST and MST and in Chantilly from 2-3 pm EST. All employees are welcome and encouraged to join in for a sweet treat.
- **Archivist Presentation**: In June, an archivist from the University of Southern California who worked on *The History of Gay Washington* will give a presentation on the research done to compose the book. Employees can join in-person in El Segundo or online with the date being announced and link being posted later on in the month.

"I'm excited to connect with both the internal and external parts of our community this Pride Month," said Shannen Daly, ALA National President. "I'm excited to learn a bit more about LGBTQ+ history from our archivist talk and I'm really looking forward to coming together as one. And of course, I'm always excited for ice cream."

The Aerospace Lambda Alliance (ALA) is an Aerospace Employee Resource Group (ERG). Membership and participation in all ERGs are open to all employees, regardless of identity.

Aerospace Employee Runs 153 Miles Raising Money for MS Research

May 30, 2024

Drew Rice (left) and Niki Moshiri (left) hand off the baton to Aunna Austin (middle) who ran the following leg of the relay.

From April 29 to May 4, Aerospace's Drew Rice, a Member of Technical Staff in the Strategic Assessments and Studies Division, ran 153 miles in six days from Beaver, UT to Spanish Fork, UT for his segment of the Multiple Sclerosis (MS) Run the US relay. The relay which started in Santa Monica, CA and continues to New York City, takes place every summer with the goal of each segment raising at least $10,000 for MS research and direct aid to those in need of help.

Rice had originally planned on running the 153 miles, the equivalent of nearly six marathons completed across six days, with his fiancé, Niki Moshiri, who was diagnosed with MS in 2021. However, after she was injured during training, Rice stepped up to run their leg on his own.

Thanks to his efforts and his support team, Rice was able to complete the segment on May 4 and pass the baton on to the next runner. Across the entire campaign, 21 running teams will participate to run a total of 3,260 miles, with each team raising money to support MS research. While Rice and Moshiri already met their fundraising goal, they will continue raising money for their segment through August 2024.

Drew Rice (right) and his fiancé Niki Moshiri (left) crossing the finish line together, completing their leg of the relay.

Space Workforce 2030's National Space Day Shows Kids the Wonders of Space

May 28, 2024

On May 3, Space Workforce 2030 (SWF2030) hosted its inaugural National Space Day event, a livestream broadcast that reached thousands of classrooms across the country, sparking the curiosity and imagination of 4th and 5th grade students to consider the incredible possibilities of space – and more importantly – their future in it.

Building off the success of this inaugural event, SWF2030 will lead an annual celebration of National Space Day and plans to expand every year to welcome more students get inspired by space.

Nearly 7,000 teachers registered to have their classrooms participate on the day of the event, including educators from every U.S. state, as well as Washington, D.C. and Puerto Rico, and in every Canadian province but one. In fact, there were classrooms registered in 48 countries, spanning all of the continents other than Antarctica. Moreover, SWF2030 companies – including Aerospace – also hosted in-person viewing events for student groups. More than 325 students participated at Aerospace, Lockheed Martin, Northrop Grumman and Blue Origin locations.

A recording of the event is available on the SWF2030 website and on YouTube, and has been viewed over 465K times.

"I know that the impact of our work reaches far beyond classrooms—it is also reaching into homes and other organizations today to inspire the next generation of scientists, engineers, and explorers," said Mel Stricklan, Executive Director of SWF2030. "Our mission is clear: to bring the stars within reach for ALL and eliminate the talent gap, once and for all." SWF2030, a strategic partnership between Aerospace and Space Foundation, is a consortium of 30 leading space companies, all committed to working together to INSPIRE, PREPARE and EMPLOY a space workforce that can support the dynamic and diverse needs of the nation's space missions for generations to come.

"SWF2030 is about building a stronger, more robust workforce that will enable our nation's space industry to thrive into the future," said Alison Bauerlein, Principal Director at Aerospace and lead for National Space Day. "A big part of that mission is to inspire students to get excited about STEM and space science, and to show kids that there is a place in our industry for them to build amazing careers."

The program highlighted the many ways space-based capabilities are relied on today as well as the exciting missions, technologies and projects that are pushing innovation forward for future generations. Whether it's working on reusable rockets, fighting climate change, or returning humans to the Moon – the amazing opportunities of space were on full display. Kids had the chance to hear from astronauts, scientists and engineers, and even CEOs – many of whom were even once kids themselves – about how they're pursuing their passion for space.

Students participated with their classmates in-person on online for the National Space Day broadcast event.

Presented in partnership with NASA, and in collaboration with the Smithsonian Science Education Center, Blue Origin's Club for the Future and Space4All, National Space Day included an out-of-this-world lineup of featured speakers, including national space leaders like Lt. Gen. Shawn Bratton of the U.S. Space Force, Pam Melroy of NASA, Chirag Parikh of the National Space Council, Laurie Leshin of NASA Jet Propulsion Laboratory and Chris Scolese of the National Reconnaissance Office. In addition, commercial space pioneers like Gwynne Shotwell of SpaceX and Tim Ellis of Relativity Space, along with world-class researchers Dr. Daniel Hastings of the Massachusetts Institute of Technology and Ellen Stofan of the Smithsonian answered kids' questions about space. The broadcast was hosted by space science communicator Emily Calandrelli and Aerospace's Jordyn Bingham.

Aerospace leaders and experts, including President and CEO Steve Isakowitz (right) and Corporate Social Responsibility Associate Director Lianne McGinley, joined in on the National Space Day festivities to inspire kids.

"What we really want to leave you with here today is the understanding that a future in the space industry is available to you. There are opportunities, no matter how old or young you are to get involved in space," Calandrelli said in the broadcast. "There's no shortage of space…in the space industry."

As part of the event, teachers who registered received a space a list of space education resources to help launch their students' exploration for scientific understanding and inspire them to consider a future in the eld. Students were also encouraged to submit responses on what they think space will be like in the future and rewarded with a unique National Space Day mission patch for doing so. Highlights of the submissions will be shared with NASA.

In April, Congress passed a resolution to officially establish May 3 as National Space Day "in recognition of the significant positive impact the aerospace community has and will continue to have on the United States of America."

Building off the success of this inaugural event, SWF2030 will lead an annual celebration of National Space Day and plans to expand every year to welcome more students of any age to get inspired by space.

For more information, visit https://swf2030.org/nsd/

A Night to Remember: Q&A on the Northern Lights with “The Aurora Guy”

May 16, 2024

As night fell on May 10, millions of curious people across the globe ventured outside in the hopes of seeing the lights in the darkness. From New York and Washington to Florida and Texas, the night’s aurora borealis was truly a sight to behold. For many, this event will be forever etched in their memory as this was their first time seeing the colorful display of the northern lights thanks to near-perfect conditions and a nearly 20-year high of solar activity.

Vince Ledvina’s aurora photography has been seen by millions of people across the globe.

Aerospace recently sat down with Vince Ledvina in the Space Sciences Department to discuss this rare event and pick his brain more about space weather. As a first-year space physics Ph.D. student at the University of Alaska Fairbanks, Ledvina is perhaps more recognized as “The Aurora Guy” with more than 350,000 followers across social media. Ledvina, who is currently an intern at Aerospace, was excited to share his passion with the Aerospace team.

What sparked your interest in space weather and aurora research? How has that interest shaped your career path?

I saw the aurora for the first time in 2003 when I was four years old coming home from trick-or-treating. I think that experience as a child embedded a latent passion for aurora chasing that eventually resurfaced in high school. Through aurora photography, I was more or less forced to learn the science of space weather, auroras, and space physics. I became a space-weather enthusiast, tracking solar flares, coronal mass ejections (CMEs), and all sorts of phenomena that would mean higher chances of aurora near me in Minnesota.

I did my undergraduate studies at the University of North Dakota and chose the school due to its proximity to the Canadian border and dark skies. I spent those four years aurora chasing, teaching others how to predict and forecast the northern lights, and people started calling me “The Aurora Guy” on campus. I then joined the University of Alaska Fairbanks in 2023 as a space physics graduate student.

From a scientific standpoint, what is it about auroras that draws in your fascination?

The aurora is beautiful and majestic to witness and photograph, but it’s also a proxy for geomagnetic activity and space weather and can cause its own effects as well. I enjoy the applied side of space physics more than the fundamental science, and studying the ways in which the aurora affects space assets is very interesting to me. My Ph.D. research specifically focuses on auroral beads, which are the formations seen right before auroral substorm onset. Auroral substorms are daily

space-weather phenomena that dump large amounts of energy into the atmosphere in the form of charged particles. This can change the radiation environment and the density of the upper atmosphere.

Did you get to see this weekend's auroras? Have you ever seen auroras in an unexpected place before?

I did! I was on vacation in India when the storm hit, and I saw it just a few blocks from my hotel in Leh. Honestly, I've never seen the aurora in quite as unusual a location as I did last weekend. Normally, I am well positioned whenever any geomagnetic activity is forecasted. This time, I thought for sure I wouldn't see the aurora, but I was pleasantly surprised!

What was special about this past weekend's solar storm?

Friday night was comparable to the historic storms in 2003 and 1989. They're roughly 1-in-20-years events, and this latest storm is one of the largest we have seen since the start of the Space Age.

Some numbers from the event:

- Max speed: 1005 km/s
- Max total field: 73.7 nT (84 nT at STEREO-A) Min Bz field: -50.1 nT Min Dst: -412 nT

The sheer number of CMEs directed at Earth at once was also impressive. At one point, there were over five CMEs with some Earth-directed components en route to our planet. We called this a "CME train" on social media. It is likely these CMEs combined or interacted to create a stronger impact at Earth, driving the G5 (the highest classification) geomagnetic storm.

This was the first major geomagnetic storm that captured the attention of the broader public. The last solar storm of this caliber took place in 2003 when smartphones capable of taking aurora photos were not available. The number of observers of this event was astounding. Combine this with a relatively good forecast by most agencies, and this geomagnetic storm was well anticipated and lived up to the hype.

The solar storms that produce these beautiful auroras can also disrupt GPS systems, satellite communications, and even terrestrial power grids. Government agencies warned us of this ahead of time, and there are news reports of some disruptions. What causes this?

Large geomagnetic storms can affect a number of industry domains. During a day of such a big storm, drag can be equivalent to maybe a week or two of "normal" conditions. The satellites lose the propellant/lifetime that they wouldn't have if there was no such storm. The increased radiation over the poles also caused some airlines to re-route polar flights.

Intense currents in the aurora can drive complementary currents in the ground due to Faraday's law of induction. Depending on the design of the power lines and the ground conductivity, these geomagnetically induced currents (GICs) can damage vulnerable transforms and potentially cause widespread blackouts.

During geomagnetic storms, the radiation belts surrounding Earth can become enhanced with energized particles. These particles can impact Earth-orbiting satellites by charging their surfaces and causing electronics issues. These effects can degrade satellite performance or cause failures that can disable satellites completely.

Finally, during intense bursts of aurora, the increased electron content in the ionosphere can disrupt communications between the ground and satellites in space. GPS signals can be affected. There were reports from farmers of precision-farming GPS equipment losing lock during the geomagnetic storm.

Luckily, NOAA's Space Weather Prediction Center is well prepared for a G5 storm and took all the necessary precautions and communicated hazards to their designated customers to ensure ground-based and spacebased assets were kept safe and operational.

Tell us about your research on how auroras can help us understand satellite performance and the space radiation environment.

I am researching auroral beads and what causes them to form. The formation mechanism of the beads is tied to the overall dynamics of auroral substorm initiation. Auroral substorms are what we see occur as a result of a global restructuring of the nightside magnetosphere, or a magnetospheric substorm. During magnetospheric substorms, magnetic elds bend and snap around Earth, releasing huge amounts of energy. These substorms fling charged particles towards the nightside of Earth like a slingshot. These particles can change the radiation environments in geostationary and low Earth orbits as well as heat the upper atmosphere. These particles create auroras when they impact our atmosphere, and this is the "auroral" substorm.

Auroral substorms heat the upper atmosphere. It expands and increases drag on orbiting satellites, which can affect their performance. Magnetospheric substorms can also increase the amounts and energies of electrons and ions around Earth (e.g., the radiation belts). An increased number of energetic particles can create higher chances of electronics failures in satellites flying through these areas. Auroral beads are seen right before auroral substorms and are tied to its initiation mechanism. Finding the answer to what causes auroral beads will be an important piece in solving the puzzle of auroral substorms and magnetospheric substorms. We don't know yet how substorms are formed, and this is a giant hole in our understanding of space physics and the near-Earth space environment.

How rare would you say moments like this past weekend are, where areas far from the typical aurora viewing area are treated to such a show?

These types of events happen on average once every 20 years or so. Auroras were reported as south as India, Hawaii, and Puerto Rico, and as north as Namibia, South Africa, and Argentina.

What does it feel like in the midst of such a nationwide experience like this past weekend to have so many people share your passion for these events?

It's incredibly exciting and represents a key moment that we need to capitalize on to increase the public's awareness of space weather and how it can affect our modern world. People want to learn more, and a new wave of aurora chasers was just born. It's time to be a guiding light and show them the beauty and power of space weather.

Anything else the public should know?

It could happen again! Solar cycle 25 is nowhere close to being over. It's possible that we may see another extreme geomagnetic storm in the future.

This last storm was important for testing our capabilities at mitigating a large space-weather event. I am excited for all the new science that will emerge from this storm as well. Since the last storm of this magnitude in 2003, we have so many more instruments and satellites working to measure the space radiation environment. It will be super interesting to see what effects this storm had on satellites, communications, and power grids. The dust is still settling, so we will just have to wait and see what we discover.

Celebrating AAPI Heritage Month

May 16, 2024

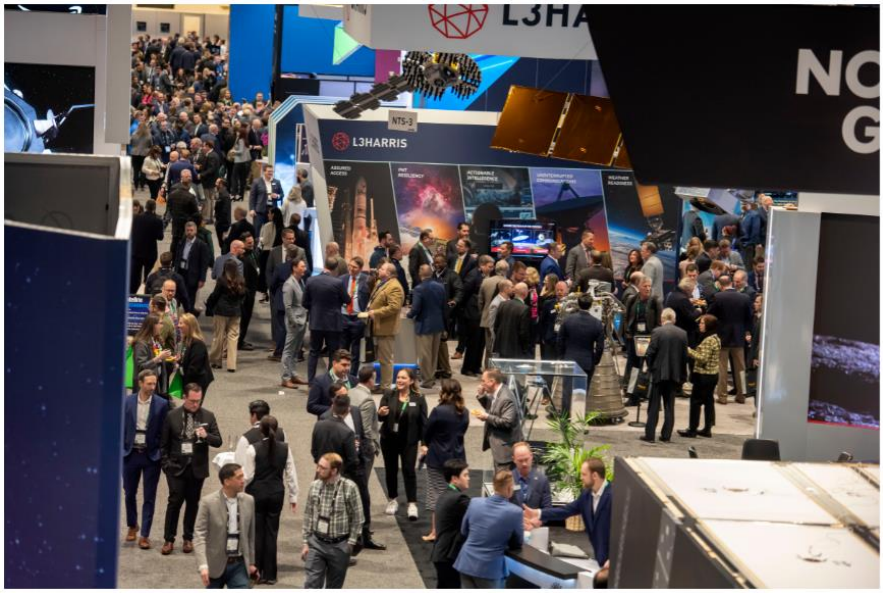
Throughout the month of May, Aerospace Asian Pacific American Association (AAPAA) is celebrating Asian American Pacific Islander Heritage Month (AAPI) through a variety of events at Aerospace locations across the country.

- Wednesday, May 15 – AAPAA Leadership Panel, “Leading Through Innovation”. Event details: Virtual.
- Friday, May 17 – Deadline to submit nomination packages for this year’s Dr. Liang Asian Pacific American Achievement Award
- Friday, May 17 – Deadline to RSVP for in-person participation in our professional development opportunity. Event details: Speaker Van Lai-DuMone, May 30
- Monday, May 20 – Deadline to RSVP to AAPAA’s AAPI Heritage Month Lunch on Thursday, May 23 in Chantilly or El Segundo.
- Tuesday, June 10 – Fireside chat with keynote speaker, Bharat Amin

Aerospace Advances Space Enterprise and Workforce Initiatives at Space Symposium 39

May 15, 2024

Aerospace showcased its valued insight and know-how during Space Symposium 39, advancing important initiatives and discussions while supporting a variety of on-site events and key networking opportunities. The Aerospace team highlighted the ways the corporation is transforming the workforce for the future, increasing its impact within the industry, and providing solutions for its customers. Over 10,000 people from more than 40 countries participated in the annual four-day event, which was held on April 8-11 in Colorado Springs, Colo.



As always, Aerospace was well-represented with leaders and experts shaping and contributing to key initiatives, such as Space Workforce 2030 (SWF2030), deepening ties with government, industry and academia to harness cutting-edge innovations to outpace threats and develop emerging ecosystems such as cislunar and in-space assembly, servicing and manufacturing, and evolving its ability to advance concepts and prototypes ahead of customer need. As a convener and connector across the Space Enterprise, Aerospace leveraged the opportunity to support partnering with commercial industry to rapidly develop and eld new space-based capabilities.

“Throughout our nation’s history, military success has hinged on support from commercial industry,” said Gen. B. Chance Saltzman, Chief of Space Operations of the U.S. Space Force, during his keynote speech. “The Space Force must harness the benefits of technological innovation and emerging capabilities if we’re going to be able to out-compete our competitors.”

Space Workforce 2030 Gains Momentum

Established in 2022 as strategic partnership between Space Foundation and Aerospace, SWF2030 brings together a consortium of leading space companies with a shared goal of increasing diversity and representation across the industry. Since its inception, SWF2030 has advanced STEM outreach, diversity recruitment, representation efforts and best practices, ensuring that the U.S. maintains its competitive edge in space science, exploration and commercialization.

Building upon this success, SWF2030 has appointed Melanie Stricklan as its first Executive Director. During the event Stricklan led a media briefing and released the organization's second annual report, which highlights the consortium's notable accomplishments and on-going objectives.

"Our annual report shows that we are making progress across our industry," said Stricklan. "But it also reminds us that there is more work to be done to grow the pool of talent that is excited, qualified, and cleared to work in space. Maintaining our U.S. leadership position in the competitive arena of space necessitates confronting the critical and growing shortage of technical and other key skills within the space industry."


Sabrina Steele, Executive Director of Aerospace's Corporate Affairs and Communications (left) moderating the Fusion Forum SGAC panel [Photo: Space Foundation]

The SWF2030 message resonated throughout the week with various speakers and panelists emphasizing the value of this initiative.

DEI Principal Director and SWF2030 center of excellence lead Via Van Liew participated in a panel focused on the future of the industry's workforce, and the importance of shaping an education pipeline and an inclusive culture that empowers all of employees to lead and do their best work.

Mel Stricklan, SWF2030 Executive Director at the SWF2030 media briefing. [Photo: Space Foundation]

"Our organization has an employee center of excellence where our 29 partnered companies discuss best practices on how to increase and retain the number of people of color and women within our organizations," said Van Liew. "We really activate our employee resource groups and business resource groups to engage and create a sense of belonging and psychological safety for employees so that we can retain them, as well as create the culture of our organization that inspire our next generation of people in space."

On May 3, 2024, SWF2030 hosted its first annual National Space Day, a nationwide broadcast event open to all 4th and 5th grade students in the U.S., designed to inspire interest in STEM studies and a career in the space industry. This initiative will expand in coming years, growing to reach students from kindergarten to college, in addition to ongoing e orts to obtain Congressional recognition of National Space Day.

Fostering the Workforce of the Future

In a demonstration of commitment to fostering a diverse space workforce to meet the needs of space missions for generations to come, the Aerospace team supported multiple events at the Space Generation Fusion Forum (SGFF), a professional development and networking event focused on the global space industry that is attended by students and young professionals from around the world.

During SGFF, Aerospace's Executive Director of Corporate Communications Sabrina Steele moderated a panel on the role of media in space industry and policy, and Principal Director of the Space Enterprise and Warfighting Division Joseph Morgan held a presentation on artificial intelligence in space.

This year, Aerospace's SGFF delegates were Ashley Kowalski and Angelica Ottaviano.

Increasing Growth and Impact

The space industrial sector is evolving dramatically, driving a wave of innovation with the potential to create next-generation space capabilities that meet current and emerging operational needs. While the U.S. government is eager to harness that pace of innovation to improve the nation's security and prosperity, pressing issues of space governance and regulation remain.

Aerospace participated in two panels featuring government and industry leaders addressing a range of current issues including legal policy challenges to in-space commercial activities, with Aerospace's VP and Chief Technology Officer Dr. Debra Emmons on hand to discuss IP strategy for emerging space domains, while Audrey Allison, a Senior Policy Analyst with the Center for Space Policy and Strategy, moderated a panel on regulation impacting commercial space activities.

Aerospace also participated in the Symposium's Space Investment program track covering a host of factors affecting the current and future market for commercial investment in space, such as obstacles to innovation. Aerospace's Principal Director for Space Enterprise Evolution Ronald Birk emphasized the importance of commercial space access to testbeds and proving grounds as an important solution to the widely held requirement for capabilities to be deemed flight-proven before they are approved to launch to space.

Later within the investment track, Aerospace's Principal Director for Commercial Space Futures Brian Bone moderated a discussion of ways that the U.S. government and commercial marketplace interact for mutual bene t in the public interest. Bone emphasized Aerospace's commitment to partnering with customers using a variety of agile business models, including commercial solutions and international partnerships, to create new opportunities and leverage cutting-edge technologies.

Participants at the Space Investment Analysis panel. [Photo: Space Foundation]

Space Safety is Essential

Accelerating commercial space's pace of innovation and integrating solutions for government requires building consensus on industry best practices and establishing reasonable guidelines for safety and norms of behavior. To illustrate the scale and interconnectedness of space safety issues, Aerospace's Space Safety Institute convened U.S. government, commercial, and nonpro t space representatives for a tabletop exercise presenting a variety of challenges in communication, coordination, and emergency responses emerging from a simulated low Earth orbit mission in crisis.

Uma Bruegman, Executive Director of the Space Safety Institute, called for greater collaboration on space safety and invited industry input for a forthcoming update to Aerospace's Space Safety Compendium, including the potential for a safety-dedicated industry consortium.

“There’s going to be such a need for space safety and understanding each other to enable autonomous maneuvering, dodge orbital debris, and avoid collisions in space. And let’s not forget cybersecurity threats,” said Bruegman. “By collaborating for sustainable space futures, we can plug gaps in safety capabilities and coordination, harmonize the language we use to discuss safety norms and policies, and better position the U.S. and our allies to advance the long-term sustainability of space and the potential of the space economy.”

In keeping with this topic, Space Symposium hosted an Aerospace-organized meeting on the topic of international space safety awareness and space traffic management.

Joining Forces Across Industry

Aerospace has continued to expand its presence at Space Symposium as demonstrated by this year’s well-attended engagements, which also included a TechCrunch innovators reception, and the U.K. Ministry of Defense’s Women in Space Roundtable, for which Emmons joined several representatives from the U.K. and U.S. space agencies and companies to discuss opportunities to strengthen work and partnerships between the two nations.

Dr. Benedikta von Seherr-Thoß holds a presentation on the topic of EU Space Security and Defense. [Photo: Space Foundation]

“Space Symposium was a dynamic experience walking the floors, engaging, and learning what new capabilities are out there,” said Emmons. “It was an amazing opportunity to work with customers, industry partners, with the new space contingent, and with international partners.”

Whether on stage, through press coverage, meeting rooms or simulations, Aerospace’s contribution to Space Symposium 39 demonstrated its thought leadership and vast depth and breadth of expertise, proving its ability to address the challenges of an ever-changing space enterprise, and securing its decades-long position as the nation’s trusted partner for space.

Aerospace Celebrates Final Delta IV Heavy Launch as New Era Begins

May 02, 2024

Click image to view video.

May 2024 Obituaries

May 01, 2024

Sincere sympathy is extended to the families of:

- **Daniel Bernstein**, member of technical staff, hired May 19, 1970, retired July 1, 1994, died Jan. 16, 2024
- **Richard Friedman**, member of technical staff, hired Jan. 23, 1961, retired Sept. 1, 1995, died Feb. 25, 2024
- **Shahen Hovanessian**, member of technical staff, hired Dec. 16, 1986, retired Oct. 1, 1996, died Oct. 31, 2023
- **Dorothy Marek**, office of technical support, hired April 27, 1970, retired March 1, 1995, died Feb. 6, 2024
- **Brian McKay**, office of technical support, hired April 28, 1961, retired June 1, 2002, died Feb. 9, 2024
- **Everett Pachner**, member of technical staff, hired Oct. 21, 1963, retired Sept. 1, 1987, died March 28, 2024
- **Michael Weidner**, member of technical staff, hired Aug. 20, 1984, retired Feb. 1, 2010, died April 11, 2024
- **Jack Yeatts**, member of technical staff, hired Aug. 10, 1992, retired June 1, 2017, died March 15, 2024

To notify Aerospace of a death and have it included in the Orbiter, please contact People Operations at (310) 336-5107.

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