AEROSPACE

ORBITER NEWS

News, announcements, and more.

# Aerospace Brings Its A-Game to Summer Games

July 31, 2024

The 2024 Aerospace Summer Games (ASG) brought together over 40 companies and thousands of people across the aerospace industry for a day of friendly competition and fun field games. This year's event was hosted at El Camino College, unlike in past years where the games were held at Dockweiler Beach. This change provided ample space for the ASG to expand and accommodate more participants. Aerospace finished in 5th place out of the long list of companies with participation from individuals across the company.

“My favorite part of the Aerospace Summer Games is being able to create a fun and exciting ‘vibe’ for our Aerospace Corporation family by providing cool swag and a rockin’ tent,” said Aerospace’s Nicole LaBier, who helped organize the company’s participation along with Madison Galvin and William Chavez. “The most exciting part about the games is seeing the comradery across all the companies participating in the events!”

Aerospacers went “All Out ‘80s” for the theme, with heavy metal space-inspired swag and a lively tent playing boombox hits to set the mood. From interns to executives, Aerospace excitement was felt and seen by everyone. Neon sweat bands and ‘80s-style baseball caps kept Aerospace standing out in the crowd, especially during games. With participation in almost every event, Aerospace competitors made their mark on the field, playing their hearts out to represent the “A-Team” as best as possible. From soccer, cornhole, volleyball and even a human pyramid, Aerospace showed what it takes to be winners on and off the field.

The Aerospace heavy metal inspired t-shirts and neon accessories made their mark this year.

Aerospace President and CEO Steve Isakowitz and Executive Vice President Tanya Pemberton also joined in on the action with the rest of the A-Team and putting their game face on during the Executive Golf event. “This is my very first time and it is amazing. We are having the best time,” said Pemberton. “I just finished the Executive Golf and I think we did pretty well; we were risk takers. We went big and we are here to win!”

With first timers and ASG enthusiasts alike, the opportunity to participate in the competitions and fraternize with other Aerospace employees as well as other companies is highly anticipated.

“This is my second time going. I am so glad I was able to participate twice. It’s just amazing to see all the companies out here having a good time,” said Olivia McLaurin, Associate Member of Technical Staff in Aerospace’s Systems Engineering Department. McLaurin participated in the water balloon toss this year. “It brings more about what Aerospace is. There’s Aerospace as the work that you do, but then it’s also the people you meet, the relationships you make and the experiences you have.”


Aerospace colleagues enjoyed the exciting environment to bond outside of the office.

In each game, Aerospace players battled to be the last player standing, going up against other spirited teams, showing their resilience and determination to out-muscle the competition. Aerospace also displayed their commitment to teamwork and support for their colleagues with a constant crowd cheering on the sidelines. The highest placed events for Aerospace were in soccer and the human pyramid with a 3rd place finish in both.

“My favorite part of the Aerospace Summer Games is to be able to compete with other Aerospace employees in a relaxing environment.” said Technical Intern Isaac Lyss-Loren.

As the day came to an end, there was a crowd lined up outside of the Aerospace tent of hopeful players from other teams trying to snag a piece of Aerospace swag—always a crowd favorite. The impressive reception of this year’s Aerospace theme kept the momentum owing all the way to the finish line.

“I’ve interned here for three years, and this was my first Aerospace Games,” said Hunter Mack, a graduate intern in the Electrical and Software Engineering Department. “My favorite memory so far has been seeing all the Aerospace employees here and getting to know them outside of work.”


# AAPAA's Liang Awards Celebrate Advancing Leaders Through Innovation

July 25, 2024

The recipients of the 2024 Dr. Alexander C. Liang Achievement Award were Jeff Chen, Vaishakhi Lahoti, Supannika "Sue" Mobasser and Patrick "Pat" Almazar.

Innovation thrives in an environment that encourages diverse perspectives to come together. Aerospace's employee resource groups (ERGs) contribute to such an environment through networking, professional development and employee recognition events that foster opportunities for employees to learn from the different cultures, mindsets and skillsets present at Aerospace.

On July 25, the Aerospace Asian Pacific American Association (AAPAA) recognized four employees who have demonstrated leadership through innovation during the 2024 Dr. Alexander C. Liang Achievement Award, which was hosted as a hybrid celebration with in-person gatherings in El Segundo and Crystal City. The recipients for this year's awards were Patrick "Pat" Almazar, Jeff Chen, Supannika "Sue" Mobasser and Vaishakhi Lahoti.

This year's ceremony focused on the theme of "Advancing Leaders Through Innovation," and highlighted how each awardee has made an impact at Aerospace and their communities. The awardees were recognized for their initiative and leadership, career and professional achievements, mentorship, collaboration and community involvement.

"Leaders aren't just those that sit at the top of an organization chart, but it really is all of us here at The Aerospace Corporation," said Steve Isakowitz, President and CEO of Aerospace, during his opening remarks. "We all have incredibly important contributions to bring. Whether you're a manager, whether an engineer in our labs, part of our business operations, we're all leaders in really important ways."

Liang and SASE winners with AAPAA officers and corporate executives during AAPAA's 45th Dr. Alexander C. Liang Achievement Award Ceremony.

Liang was a leader in his own right. A former General Manager of the Vehicle Systems Division in the Engineering and Technology Group (ETG), Liang joined Aerospace in 1970. Throughout his career, he made a great impact as a mentor to others and a

champion for Asian American Pacific Islander (AAPI) employees, contributing toward a more inclusive and diverse workplace for all. Members of his family attended the ceremony in person and online in honor of his legacy.

“Dr. Liang’s vision and commitment to excellence continues to inspire us all today,” said Lois Yu, Vice President of AAPAA.

During their acceptance speeches, awardees cited how their relationships with mentors and mentees alike have contributed to their professional development and leadership styles. In addition to continuing their pursuits to advance their own careers, they also remain committed to supporting their colleagues to grow as well.

Tammy Choy was presented with a plaque to recognize her outstanding leadership and visionary guidance to Aerospace and AAPAA.

AAPAA also acknowledged Tammy Choy, Vice President and Chief Information Officer, by surprising her with a plaque in recognition of the outstanding leadership and visionary guidance she has provided to Aerospace throughout her career. Choy, who will be retiring in October, had the privilege of learning from Dr. Liang directly.

She shared a story in which Liang told her, “‘You have the potential to one day be an officer at this company. I don’t know if you will get there, but when and if you do, your job bar none is to make sure that our community gets recognized, that you bring in the best talent you can find and you make it such that they can do the best work possible.’” Choy said, “And what I will say to Alex is, ‘I did my best.’”

Aerospace has more celebrations planned ahead to acknowledge Choy’s retirement.

The ceremony also recognized the 10 Aerospace employees honored this year by the Society of Asian Scientists and Engineers (SASE) with professional achievement and SASEsalutes awards. Aerospace has had the maximum number of employees recognized by SASE for two years in a row.

Glenn McKeown, Senior Vice President General Counsel and Secretary and executive sponsor to AAPAA, introduced the keynote speaker, and provided closing remarks. Receptions were held in both El Segundo and Crystal City to celebrate awardees and their families.

## The Power of Connection

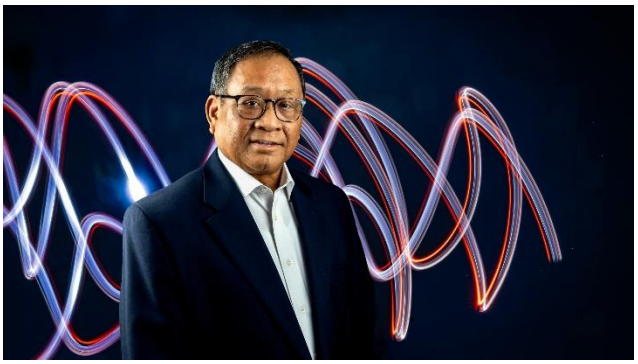
This year’s keynote speaker was Bruce Hollywood, Associate Chief Operations Officer for the U.S. Space Force (USSF). Hollywood served 21 years in the U.S. Air Force before joining the Joint Staff and ultimately playing a key role in the establishment of the USSF in 2019.

Hollywood began by acknowledging the impact that Aerospace’s partnership has had on the USSF, juxtaposing this to Dr. Liang’s profound impact on Aerospace and the AAPI community. Hollywood acknowledged the opportunity that living in America has afforded him while also noting that learning about one’s heritage can open up additional opportunities, networks and experiences. While his speech was laden with humor, Hollywood’s account of his search for his Japanese birth mother following a near-death experience brought tears to audience members’ eyes. It was through this journey that Hollywood gained access to a whole new universe, understanding what it means to be a Japanese American and bringing these two cultures together.


Keynote Speaker Bruce Hollywood, pictured with representatives from AAPAA, recounted discovering his Japanese heritage and the impact of reuniting with his birth mother.

# Meet the Winners

**Patrick "Pat" Almazar, Senior Project Leader in Systems Engineering – Acquisition:**



Pat served in the USAF for twenty years, rising to Lieutenant Colonel. At Aerospace, he serves as the Commercial Space Integration Advisor in the Office of the Assistant Secretary of the Air Force for Space Acquisition & Integration (SAF/SQ).

Pat volunteers with the Virginia Institute of Marine Science (VIMS) and serves as a board member for the Virginia District 10 Service Academy Advisory Board (SAAB) and as a mentor to Aerospace interns and Air Force Academy cadets through Aerospace's volunteer and outreach program. His family immigrated to the U.S. from the Philippines after World War II where his grandfather served as a Philippine Scout for the U.S. Army.

"I wonder what my father's father imagined generations ago while gazing at the night sky, waiting for his daily catch of fish to come in. Could he have dreamed of a grandson who would one day reach for the stars? I encourage each of you to honor and cherish your mentors. Become one yourself and dare to dream."

**Jeff Chen, Director in Environmental Health and Safety:**

Jeff has consulted on indoor air quality and industrial hygiene inspections, hazardous materials and waste assessments/management, providing guidance on environmental compliance, and litigation support in industrial, commercial, and residential settings. Jeff joined Aerospace in 2008 and in his current role, he leads a highly experienced team that supports enterprise laboratory operations and environmental compliance, as well as the Leadership Lab Safety Council. Jeff actively contributes to environmental causes and protection, serves as the AAPAA National Treasurer, and volunteers for the Boys and Girls Club.

"The essence of what we do here at Aerospace and within AAPAA is to provide avenues for growth, development and collaboration and to celebrate diversity. I've always believed that leadership is about embracing opportunities, mentoring others and giving back, and it is with this in mind, I will continue to try to live up to the values and spirit of this award and to continue my journey of growth, leadership and service."

**Vaishakhi Lahoti, Director in Enterprise Information Services:**

Vaishakhi earned her Lean Six Sigma Black Belt accreditation in India in 2008 before moving to America in 2009. At Aerospace, she leads the Business Analytics team that works with stakeholders across the business and technical organization to provide data based analytical solutions for complex processes. She then moved to the United States in 2009. Vaishakhi serves as the National Secretary for AAPAA and loves to travel with her family and practice photography.

"This award is a celebration of our resilience and our relentless pursuit of excellence. As I accept this award, I am reminded of the

importance of continuing that work that Dr. Liang championed; the pursuit of equality, representation and justice for the Asian Pacific American community is ongoing."

**Supannika "Sue" Mobasser, Senior Project Leader in Software Architecture and Systems Software Engineering:**

Sue supports a broad spectrum of customers in pre-acquisition planning, source selection, and Agile software development approaches. Sue serves as an adjunct professor at the University of Southern California and has over 100 publications including a book. She is heavily involved with the Ground System Architectures Workshop (GSAW), mentoring young engineers, and volunteering for technical forums, conferences and AAPAA. Sue colorfully compared life at Aerospace to a buffet line during her acceptance speech to acknowledge some of the life lessons that have helped her navigate her career as an introvert with Asian heritage: work life balance, networking, asking for help, giving compliments and feedback. She sweetly closed by acknowledging that earning the Liang Award "is like a dessert corner in the buffet line, which is sweetening our lives."

Congratulations to Pat Almazar, Jeff Chen, Sue Mobasser and Vaishakhi Lahoti for all you have accomplished!

*The Aerospace Asian Pacific American Association (AAPAA) is an Aerospace Employee Resource Group (ERG). Membership and participation in all ERGs are open to all employees, regardless of identity.*

# ADAC Promotion Party Celebrates Aerospace's Supportive Culture

July 22, 2024

Last week, the Aerospace Diversity Action Committee (ADAC) hosted the second annual corporatewide Promotion Party, which provides Aerospace employees an opportunity to gather together for a shared celebration held virtually across the country.

Steve Isakowitz, President and CEO of Aerospace, provided the opening remarks where he acknowledged the importance of coming together to collectively recognize the many successes and milestones achieved across the company. He also highlighted the value of the Employee Resource Groups (ERGs), which are supported by ADAC and play a pivotal role in enabling Aerospace's talent to thrive.

"I cannot speak highly enough about the work our ERGs do for their members and our company," said Isakowitz. "They are a powerful force for the professional and personal growth of our people. I have no doubt that the networks they build and the mentorship they provided directly contribute to many of the promotions we are recognizing today."


Isakowitz also spoke at ADAC's El Segundo promotion celebration held in June.

Hundreds of employees joined in online to celebrate the growth of their colleagues. During the event, guest speakers shared experiences from their own careers and the value of fostering relationships, building community and learning from others.

Tammy Choy, Vice President and Chief Information Officer of Aerospace and Aerospace Diversity Action Committee Executive Sponsor, congratulated the promotees and encouraged them to be a mentor to others and to share their experience and what they have learned to help grow the careers of their colleagues.

“I would love for all of you to share your experience with others,” said Choy. “We want you to take what you’ve learned and help others learn how to get promoted and develop their careers as well. Listen as they share their aspirations with you and do everything you can to help them get to that next phase.”

Rachel Morford, Principal Director of the Executive Planning and Integration Office, spoke about mentorship and the importance of building connections with others. She also spoke about her involvement with the Aerospace Women’s Committee (AWC) and the bonds she made that had a big impact on her professional development.

“Those people I met very early on in my career very frequently came from my involvement in AWC,” said Morford. “They became my personal board of directors, the people I continue to go to with questions and to get advice. They build me up and cheer me on and they also frequently are the ones who give it to me straight. They provide me with my toughest but most important feedback that I’ve received over the years. I know that every single ERG provides that for their members and everyone at the company. They are an amazing example of our communities coming together to support one another, exemplifying the commitment the corporation has to our people and the commitment each of us has to each other.”

## Celebrating Together

In June, AWC and ADAC both held in-person promotion parties, encouraging employees to join together in celebration. Promotees and their managers also had the opportunity to enjoy ADAC’s in-person celebration in El Segundo where they heard from a variety of speakers. AWC members and promotees gathered in Albuquerque and El Segundo where they enjoyed lunch together, celebrating the accomplishments of their ERG members and the growth achieved throughout the year.


Members of AWC enjoyed celebrating each other during their luncheon in Albuquerque.

“There is something really special about bringing people together from across the country and across locations to celebrate our success as one Aerospace,” said Isakowitz.

Congratulations to all the promotees!

*Membership and participation in all Aerospace Employee Resource Group (ERG)s are open to all employees, regardless of identity.*

# Novel Workshop Spotlights Need for In-Space Rescue Capabilities

July 09, 2024


The RAND and Aerospace delegations at the 2024 Space Rescue Workshop (from left: Colleen Stover, Uma Bruegman, Jan Osburg, Grant Cates, Bruce McClintock, Anita Chandra, Robin Dickey, and Doug Ligor) (Photo by Jan Osburg/RAND)

The implosion of OceanGate's Titan submersible in 2023 underscored the enormous risks of operating novel vehicles without safety regulations, or contingency plans in the event of emergencies. This tragic accident not only illustrates the critical importance of emergency protocols, but also serves as an apt analogy for space safety. To advance the topic of in-space rescue capabilities and protocols, The Aerospace Corporation and RAND recently sponsored and co-hosted the first U.S. Space Rescue Workshop, bringing government, industry, and private space organizations together for a series of frank discussions and tabletop exercises under the Chatham House Rule, spotlighting the current state of human space flight rescue and practical means of bridging current capability gaps for potential rescue needs.

Workshop participants discussed various examples of emergencies requiring external assistance efforts, such as the failure of a spacecraft's propulsion system while in orbit, breaches of pressurized compartments, illness or injury of astronauts, and breakdowns of surface exploration vehicles in which crew is stranded. During the workshop's tabletop exercise, participants were given fictional scenarios involving a commercial low Earth orbit "tourist" flight that can't reenter due to parachute damage, and a scenario in which a pressurized lunar rover fails, leaving several astronauts stranded.

"As the frequency of space flight and access to space continues to grow, humans will spend more time in space than ever before, and we all know that this is a place where things can and do go wrong. Our rescue workshop topics and tabletop

scenarios were predicated on that probability," said Uma Bruegman, Executive Director of Aerospace's Space Safety Institute and a cohost of the event. "We see these activities as part of a series of engagements with leading stakeholders to comprehensively tackle one important piece of the broader space safety challenge."

## Agreements and Accords

Much like the topic of in-space rescue itself, the space rescue capability gap remains ongoing. In the late 1960s, the Outer Space Treaty and Rescue and Return Agreement entered into force, requiring that nations render all possible assistance to astronauts in an emergency. The Artemis Accords signed in 2020 similarly require all signatories commit to taking all reasonable e orts to render necessary assistance to personnel in outer space who are in distress and acknowledges national obligations under the Rescue and Return Agreement.

While these agreements do not require signatory nations to develop space rescue capabilities, the United Nations Convention on the Law of the Sea offers a potential model for such a measure. The Convention requires coastal nations to "promote the establishment, operation and maintenance" of search and rescue services and to cooperate on search and rescue efforts. Following the implosion of the commercial Titan submersible, a multinational cooperative effort including the U.S. Coast Guard, Navy and Air National Guard searched a swath of ocean more than 10,000 square miles across attempting to rescue survivors.

Currently, however, there is no entity specifically chartered to provide in-space rescue services. To date, neither the U.S. government nor commercial space flight providers have known plans in place to conduct a timely rescue of a crew or participants from a distressed spacecraft in low Earth orbit or anywhere else in space. Given the absence of voluntarily crafted rescue plans and dedicated resources, today's space flight participants journey entirely at their own risk, rendering the need for new capabilities more important than ever.

"All too often it takes a costly mistake to spur serious policy change or innovation, so we need to continue raising awareness of the importance of space rescue and escape capabilities so we can save lives and missions," said Dr. Grant Cates, Senior Project Leader of Aerospace's Space Architecture Department, who kickstarted recent research on space rescue after applying for the 2021 Inspiration4 civilian space flight mission. "Getting these capabilities in place will be an evolutionary process, but we can partially close the gap today by leveraging existing capabilities and vehicles for rescue missions. That being said, technological advances, research and development are needed now more than ever to develop future solutions."

## Bridging the Capability Gap

Key capabilities for in-space rescue discussed during the workshop include common docking mechanisms for all crewed spacecraft, timely availability of a rescue spacecraft or a safe haven to escape to, and charters and sufficient resources for government, commercial, and/or international organizational entities to plan for, train for, coordinate, and conduct in-space rescues. Another capability in discussion is the integration of rescue plans into launch plans, and the repurposing of other rockets scheduled for orbital launch for in-space rescue missions.

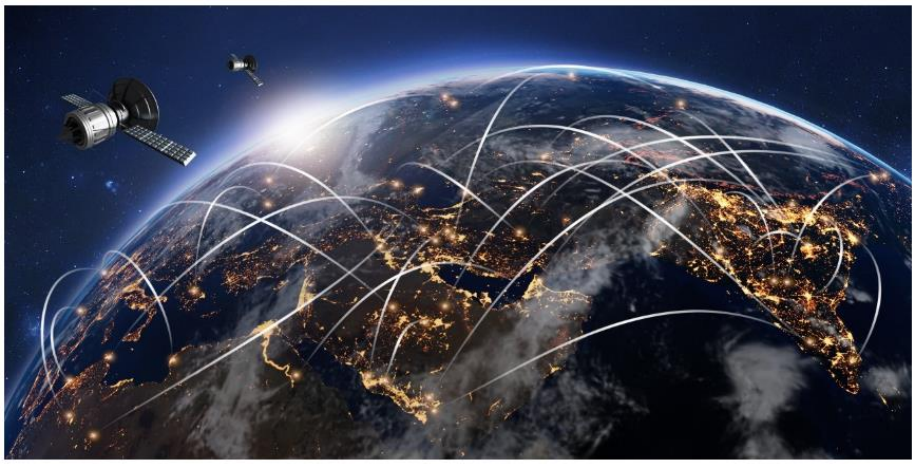
A follow-on virtual workshop was held to accommodate organizations who could not participate in the initial workshop. Discussions are ongoing, and Aerospace and RAND will co-host a panel discussion on this topic at the AIAA ASCEND conference in Las Vegas this July.

“Hope is not a plan—we can, and should, do better,” said Jan Osburg, Senior Engineer at The RAND Corporation. “While it may be many years before we may need a dedicated space rescue organization with its own launch vehicles and spacecraft at the ready 24/7, having a small team tasked with both developing space rescue strategy and coordinating any actual space rescue missions should the need arise makes sense now. The technology challenges, I think, are surmountable. It’s the organizational challenges, maybe even the legal challenges, that currently seem to be the bottlenecks. Whoever takes the initiative here can set the standards and procedures and get others involved and engaged in this effort with them, which has tremendous humanitarian and strategic advantages.”

*This article has been published on Aerospace.org.*

# Mission Assurance Baseline Matrix: Aerospace Provides a New Way to Rethink Risk

July 03, 2024



An increasingly dynamic environment is driving changes in the risk posture across the industry. As a result, Aerospace is shaping the future by developing new strategic approaches to balance risk with mission needs across the space domain. Aerospace’s Mission Assurance Baseline (MAB) matrix provides a framework for tailoring mission assurance that leverages industry crowdsourcing to advance new, dynamic approaches to risk management while delivering on Enterprise Mission Success.

“Aerospace has a depth of knowledge that makes us unlike just about any other entity across the enterprise,” said Barbara Braun, Assistant General Manager of the Agile Acquisitions Division at Aerospace. “Increasingly, we are able to help not only our government customers, but also our commercial contractor partners by providing the expertise they need for mission success – and the MAB matrix will help make that happen.”


The Mission Assurance Baseline (MAB) matrix provides a framework for tailoring mission assurance that leverages industry crowdsourcing to advance new, dynamic approaches to risk management while delivering on Enterprise Mission Success.

Visit the MAB site to learn more.

## Responding to Change

By creating resources like the MAB matrix, Aerospace hopes to enable broader enterprise collaboration to address the needs of an industry changing faster than ever before. While this matrix provides more than 4,000 data points to ensure mission success for a spacecraft, it is also flexible enough to allow users to focus their approach.

“This new format will make mission assurance more accessible, especially for programs that are looking to tailor their efforts. These programs can now look, in an outline format, at Aerospace’s baseline at a high level and then dive down deeper,” said Braun.

The MAB is a comprehensive toolkit that Aerospace has been using for years. The MAB matrix is an adaptation of that toolkit designed to better serve evolving customer needs and the broader space community. Like the Space Attack Research and Tactic Analysis (SPARTA), the MAB matrix will soon be publicly available, empowering both external companies and Aerospace employees to more easily access the resource.

“We pay attention to the changing mission assurance landscape and develop tools like the MAB matrix to help the whole enterprise adapt to the changing times,” said Braun.

## Cultivating Collaboration

The MAB matrix will allow users to focus mission assurance efforts in specific areas rather than across the entire breadth of possible tasks, some of which may not be necessary or desired. The matrix will also gather user feedback and lessons learned from across the industry, which will be used to increase collaboration and knowledge sharing.

With resources like the MAB matrix, Aerospace can enable broader enterprise collaboration to address the needs of an increasingly dynamic space industry.

“We have to really be in front of the enterprise leading agencies and our customers through this collaboration; the matrix does an excellent job of showing folks what we have learned while allowing everybody to contribute and benefit from the experience of others,” said Braun.

The adaptive mission assurance that Aerospace affords customers is key to the success of the entire space enterprise and the MAB matrix provides the framework for collaborative knowledge sharing and problem-solving.

“We are a servant of the enterprise with a lot of knowledge gained from working with so many customers,” said Braun. “It’s time we put this out there for everybody to use, which will benefit our ultimate goal of securing a space enterprise that serves our national interests.”

*This article has been published on Aerospace.org.*

# July 2024 Obituaries

July 01, 2024

*Sincere sympathy is extended to the families of:*

- **John Barnes**, member of technical staff, hired June 5, 1961, retired Dec. 1, 1990, died May 26, 2024
- **Mary Burton**, office of technical support, hired Oct. 18, 1960, retired April 1, 1983, died April 6, 2024
- **Wilkie Haw**, member of technical staff, hired July 2, 1990, retired Dec. 1, 2004, died April 30, 2024
- **Jonathan French**, member of technical staff, hired Oct. 16, 2006, died June 7, 2024
- **Geoffry Larsen**, member of technical staff, hired March 12, 2007, retired Oct. 1, 2019, died June 10, 2024
- **Stephen Trattner**, member of technical staff, hired Oct. 29, 1973, retired Jan. 1, 2006, died Oct. 20, 2024
- **George Williams**, member of technical staff, hired Jan. 1, 1994, retired April 17, 1961, died May 18, 2024
- **Mark Zurbuchen**, member of technical staff, hired Aug. 28, 2006, died Jan. 3, 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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