

Featured Stories



John Casani receiving the National Air & Space Museum's Lifetime Achievement Award. Image Credit: Carolyn Russo/NASM, National Air and Space Museum, Smithsonian Institution

Remembering John Casani, Former Manager of Multiple NASA Missions

John R. Casani, a visionary engineer who served a central role in many of NASA's historic deep space missions, died on Thursday, June 19, 2025, at the age of 92. He was preceded in death by his wife of 39 years, Lynn Casani, in 2008 and is survived by five sons and their families.

Casani started at JPL in 1956 and went on to work as an electronics engineer on some of the nation's earliest spacecraft after NASA's formation in 1958. Along with leading the design teams for both the Ranger and Mariner series of spacecraft, he held senior project positions on many of the Mariner missions to Mars and Venus, and was project manager for three trailblazing space missions: Voyager, Galileo, and Cassini.

His work helped advance NASA spacecraft in areas including mechanical technology, system design and integration, software, and deep space communications. No less demanding were the management challenges of these multifaceted missions, which led to innovations still in use today.

"John had a major influence on the development of spacecraft that visited almost every planet in our solar system, as well as the people who helped build them," said JPL director Dave Gallagher. "He played an essential role in America's first attempts to reach space and then the Moon, and he was just as crucial to the Voyager spacecraft that marked humanity's first foray into interplanetary — and later, interstellar — space. That Voyager is still exploring after nearly 50 years is a testament to John's remarkable engineering talent and his leadership that enabled others to push the boundaries of possibility."

Born in Philadelphia in 1932, Casani studied electrical engineering at the University of Pennsylvania. After a short stint at an Air Force research lab, he moved to California in 1956 and was hired to work at JPL, a division of Caltech, on the guidance system for the U.S. Army Ballistic Missile Agency's Jupiter-C and Sergeant missile programs.

In 1957, the Soviet Union launched Sputnik 1, the first human-made Earth satellite, alarming America and changing the trajectory of both JPL and Casani's career. With the 1958 launch of Explorer 1, America's first satellite, the lab transitioned to concentrating on robotic space explorers, and Casani segued from missiles to spacecraft.

One of his jobs as payload engineer on Pioneer 3 and 4, NASA's first missions to the Moon, was to carry each of the 20-inch-long (51-cm-long) probes in a suitcase from JPL to the launch site at Cape Canaveral, Florida, where he installed them in the rocket's nose cone.



At the dawn of the 1960s, Casani served as spacecraft systems engineer for the agency's first two Ranger missions to the Moon, then joined the Mariner project in 1965, earning a reputation for being meticulous. Four years later, he was Mariner project manager.

Asked to share some of his wisdom in a 2009 NASA presentation, Casani said, "The thing that makes any of this work ... is toughness. Toughness because this is a tough business, and it's a very unforgiving business. You can do 1,000 things right, but if you don't do everything right, it'll come back and bite you."

Casani's next role: project manager for NASA's high-profile flagship mission to the outer planets and beyond — <u>Voyager</u>. He not only led the mission from clean room to space, he was first to envision attaching a message representing humanity to any alien civilization that might encounter humanity's first interstellar emissaries.

"I approached Carl Sagan," he said in a 2007 radio interview, "and asked him if he could come up with something that would be appropriate that we could put on our spacecraft in a way of sending a message to whoever might receive it." Sagan took up the challenge, and what resulted was the <u>Golden Record</u>, a 12-inch gold-plated copper disk containing sounds and images selected to portray the diversity of life and culture on Earth.

Once Voyager 1 and 2 and their Golden Records launched in 1977, JPL wasted no time in pointing their "engineer" toward <u>Galileo</u>, which would become the first mission to orbit a gas giant planet. As the mission's initial project manager, Casani led the effort from inception to assembly. Along the way, he had to navigate several congressional attempts to end the project, necessitating multiple visits to Washington. The 1986 loss of Space Shuttle Challenger, from which Galileo was to launch atop a Centaur upper-stage booster, led to mission <u>redesign efforts</u> before its 1989 launch.

After 11 years leading Galileo, Casani became deputy assistant laboratory director for flight projects in 1988, received a promotion just over a year later and then, from 1990 to 1991, served as project manager of <u>Cassini</u>, NASA's first flagship mission to orbit Saturn.

Casani became JPL's first chief engineer in 1994, retiring in 1999 and serving on several nationally prominent committees, including leading the investigation boards of both the <u>Mars Climate Orbiter</u> and the <u>Mars Polar Lander</u> failures, and also leading the James Webb Space Telescope Independent Comprehensive Review Panel.

In early 2003, Casani returned to JPL to serve as project manager for NASA's <u>Project Prometheus</u>, which would have been the nation's first <u>nuclear-powered</u>, <u>electric-propulsion spacecraft</u>. In 2005, he became manager of the Institutional Special Projects Office at JPL, a position he held until retiring again in 2012.

"Throughout his career, John reflected the true spirit of JPL: bold, innovative, visionary, and welcoming," said Charles Elachi, JPL's director from 2001 to 2016. "He was an undisputed leader with an upbeat, fun attitude and left an indelible mark on the laboratory and NASA. I am proud to have called him a friend."

Casani received many awards over his lifetime, including <u>NASA's Exceptional Achievement Medal</u>, the Management Improvement Award from the President of the United States for the Mariner Venus Mercury mission, and the Air and Space Museum Trophy for Lifetime Achievement.

See the original <u>JPL media release</u>.



Memories of Mars

It was grainy but groundbreaking. When Mariner 4 transmitted the <u>first close-up images</u> of the Martian surface back to Earth after its flyby on July 14, 1965, the moment marked the start of JPL's legacy of exploring Mars. Sixty years later, the echoes of that mission still resonate across our Lab.

To mark this milestone, we asked JPLers to share the Mars missions that inspired them — whether it was Viking's first touchdown in 1976, Pathfinder's Independence Day landing, or the sight of Spirit, Opportunity, or Perseverance rolling across the Martian regolith.

Some were pulled in by a childhood fascination with space. Others had a front-row seat to history. Many were driven to pursue science, engineering, and exploration after seeing the Red Planet up close, whether through a magazine photo, in a textbook, or on TV.

Below are some of the stories we received from rover drivers and roboticists, systems leads and scientists, Mars mission veterans and future-focused dreamers. A common thread amidst the diverse narratives is how one moment of inspiration can lead to decades of exploration — and how the Lab's work today keeps the spirit of Mariner 4 alive.

Hoppy (Humphrey) Price: Mars Exploration Program Chief Engineer

In the summer following fifth grade, the Mariner 4 Mars flyby was an impactful inspiration in my life. I had been fascinated by NASA's space exploration program and the historical Mars telescopic observations by Giovanni Schiaparelli and Percival Lowell. I had also read *The Martian Chronicles* by Ray Bradbury, so I was expecting the Mariner 4 photos to reveal canals and ancient cities on Mars. I was disappointed to see only a <u>cratered landscape</u> devoid of any



indications of an alien civilization. Even so, I found the mission and the science discoveries from Mariner 4 to be very exciting.

I read in the news accounts that summer that the spacecraft had been designed, built, and operated by JPL, and I decided right then that my dream was to work at the Lab and design interplanetary spacecraft. It was a circuitous path with a lucky break along the way that brought me to JPL after a brief stint in the nuclear power industry.

I finally realized my dream of designing an interplanetary spacecraft as configuration engineer for the Cassini Saturn orbiter. Of course, there were many other exciting projects that I had the pleasure of contributing to at the Lab. I continue to enjoy my dream job at JPL and look forward to coming to work every day, and it all began with Mariner 4.

As Chief Engineer for NASA's robotic Mars Exploration Program, I oversee the program level systems engineering for our three orbiters and two rovers that are currently exploring the Red Planet. So, I am continuing in the legacy of Mariner 4, the mission that started it all.

T'ana Joseph: Mars Exploration Program Intern

When the Perseverance Rover was launched in July 2020, I was overcome with joy! I remember waking up extra early to watch the stream of the launch, proud to participate in the "Countdown to Mars."

As a rising senior in high school who grappled with the COVID-19 shutdown like the rest of the world, I was elated to see that the dedication and zeal of the Mars 2020 program persisted through the delays and safety restrictions brought on by the pandemic. Perseverance truly earned its name, and it inspired me to further my dream of contributing to future space exploration endeavors.



The Mars Perseverance rover EDL team in February 2021 wearing PPE and enjoying individually-packaged "lucky peanuts." **Image Credit: NASA/JPL-Caltech**

Fast forwarding to May 2023, I found myself at JPL as a sophomore college intern working with the Mars Sample Return team. I fell in love with our great Red Planet and the passion from the amazing team putting everything together. I even got to dabble in planning a future Mars satellite mission concept, and the deeper I went, the more I dreamed big about what we'd discover next.

The Mars program at JPL has fueled my passion for space missions for almost five years now, and as I approach my graduation in December 2025, I don't foresee that flame burning out at all.

Abigail Fraeman: Mars Science Laboratory Deputy Project Scientist

I was a 16-year-old junior in high school when I was inspired to become a planetary scientist by the Mars Exploration Rover missions. The Planetary Society ran an outreach program called "Red Rover Goes to Mars" where they selected 16 high school students from around the world to visit JPL during the first few weeks of the MER mission. I was selected, so I got to be in the science operations working group room in Building 264 alongside the science team the night that Opportunity landed. I was blown away by the first images of Meridiani Planum — they looked so different from any other Mars landing site we'd seen in the past. I thought the scientists who were able to decipher Mars' past by looking at images like those had the coolest job ever, and I decided to study geology with the dream to explore Mars with rovers one day too.



Fraeman (second from left) at 16 years old seeing the first images from Opportunity.



Fraeman in 2023 in front of the Curiosity rover model.

I'm now the deputy project scientist of the Curiosity Mars rover, which connects to my Mars rover career aspirations. I'm also working with the Mars helicopter team, where I can help dream of new ways to explore the surface of Mars by air.

Robert Smythe: Senior Systems Engineer (386A)

My uncle, Jim Tillman (RIP), participated in the development of the wind speed sensor on Viking landers, archived and analyzed the Mars global weather data, and produced many useful weather models.

He had a stained glass window rendering of the first dramatic Viking surface pano in his dining room in Seattle. His daughter, and my cousin, Rachel just gave a talk to the Caltech Management Association in April. I decided to become an engineer based on the science and engineering that was part of the extended family background my uncle showed us.

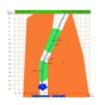
Mark Maimone: Autonomous Planetary Rover Navigation Principal

Viking I landed on Mars when I was a pre-teenager. Back then, pictures from space would often take years to get into the public zeitgeist (via magazines, textbooks, TV shows, museums). So when I first saw this picture of JPLers looking at Viking I data, I was awestruck at the prospect of being one of the first humans to see pictures from another world.

Twenty years later, I joined JPL and the Mars Exploration Rover mission to make Spirit and Opportunity drive themselves safely. During operations, I created an



automated <u>Mobility Downlink Report</u> that was sent out to the team by text message within minutes of having received new imagery from Mars. And JPL started publishing *all* Mars surface images immediately on the internet. No need to wait years for new images anymore.











Images comprised in the Mobility Downlink Report Maimone created from the Spirit rover's drive data.

I've now helped develop three generations of <u>Mars Rover autonomy</u>, been a human Mars Rover driver, trained generations of new drivers for decades, am currently Mars 2020 Deputy Team Chief for Robotic Operations, and am helping review companies developing the next-generation Lunar Terrain Vehicle.

Ashwin Vasavada, Project Scientist, Mars Science Laboratory (Curiosity)

I have a story related to the Viking landers. This <u>Viking</u> <u>picture</u> was in a book I had as a kid when I was about 10 years old. Having Voyager and Viking happen when you were little provides a lot of inspiration, but it's possible that this single picture made me want to do what I do today. Everything about it blew my mind. I couldn't believe there were whole other worlds out there to explore, with dirt and rocks, and a sky. And the way the flag and the antenna are in the picture, it brought home the idea that we were explorers, sending back data from so far away. I wanted to be a part of that.

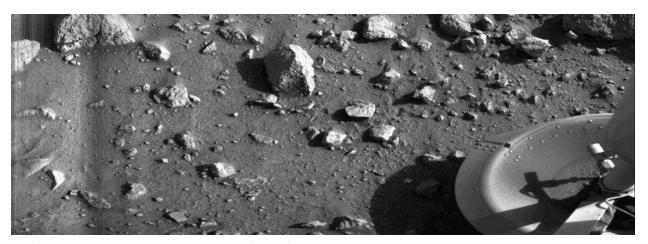
I've now helped run the Curiosity rover for 13 years on Mars and it still amazes me that every day I get to explore places on another world that no human has ever seen,

beginning each day on Mars by aiming an antenna at a tiny blue dot in the sky.

Marguerite L Syvertson: Mars Exploration Program Area Manager, Strategic Development

In the summer of 1976, I was 11 and my dad was the Deputy Director of Ames. When I found out about the Vikings, I begged to be at Ames for the landing — which was in the middle of the night. My dad compromised and brought me in at 6 a.m. to sit, alone in the dark, in Ames' auditorium and watch the data come in on the screen.

There are a few things I remember: scientifically, a prism-shaped rock near one of the landing legs — and, more importantly, the reactions of the scientists and engineers as they saw the surface of Mars for the first time. There were joyful cries and tears of happiness. That really stuck with me through the years, leading me eventually to work here at JPL a decade after that fateful morning. I recently co-led the team that developed the NASA strategy for the future exploration of Mars, and I think back to that day as the starting point for that strategy.



The first photograph ever taken on the surface of the planet Mars, obtained by Viking 1 on July 20, 1976. Image Credit: NASA/JPL-Caltech

My dad eventually became Director a couple years later and retired in 1984. To honor him, Ames had the auditorium where, coincidentally, I watched Mars imagery in 1976 named for him. It's weird to know that I watched the Viking landing from Syvertson Auditorium, but it also reminds me where it all started.

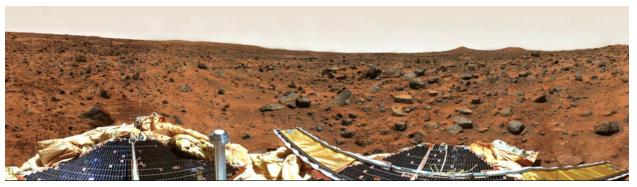
Heather Justice: Engineering Applications Software Engineer (397B)



Opportunity landed on my 16th birthday. Around that time, I stumbled across a documentary about the MER mission that got me really thinking about working on robotics and/or NASA stuff. Many years later, Opportunity was still going when I started working at JPL and joined that mission, and eventually I became the Lead Rover Driver for Opportunity. Currently I work on the Mars 2020 mission, working multiple robotic operations roles for the Perseverance rover.

Matthew Van Kirk: MSL Instrument Systems Lead/Mission Lead

Pathfinder was the inspiration for me. I was 12 years old when Pathfinder landed on July 4, 1997. I remember my family was having a cookout for Independence Day and I was outside playing when my Mom told us to come inside and watch the news coverage because something cool was happening. From that point on, space was my thing. I loved seeing the pictures of the Pathfinder landing site and Sojourner rover in magazines (that was just before we got our first Internet-connected computer).



The first contiguous, uniform panorama taken by the Imager for Mars Pathfinder. **Image Credit:** NASA/JPL-Caltech

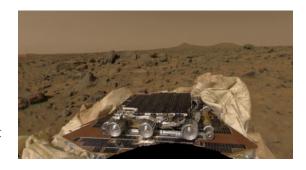
I cut out those pictures to use for a school project where I made a scale model (as well as I could by measuring the photos) of the lander and rover, complete with cut up hair curlers for the spiky rover wheels and rocks "donated" from my neighbor's garden for the landscape. Ten years later, I started my career at JPL. I've had the privilege of working operations for Spirit, Opportunity, Phoenix, and Curiosity. It's incredible to think that I've gotten to work alongside some of the same people who inspired me almost 30 years ago.



Matthew Van Kirk with rover models on Lab.

Michael Mischna: Program Scientist, Mars Exploration Program

In 1997, I was at Cornell, working over the summer between the end of my senior year before I departed for graduate school. I was working for Peter Gierasch in the astronomy department learning about and studying the atmosphere of Jupiter, which was then being imaged by Galileo. At the time, Peter was working on the dynamics of Jupiter's atmosphere, but earlier in his career he had studied radiation and convection in the Martian atmosphere, right around the time of the early Mariner missions.



I recall when I came into the office the Monday following Pathfinder's landing and the July 4th holiday, he was all abuzz — not about Jupiter, but about Mars. Over the subsequent weeks, we pored over images that came down from the Martian surface and probably spent more time talking about Mars than Jupiter. I was entranced. I could study a planet with a surface and atmosphere? Amazing! Fortuitously, that summer, Jim Bell — who was also at Cornell at the time — was offering a small project to track Martian clouds using Hubble and I leapt at the opportunity to continue using new data to study Mars. Pathfinder led to my fascination with Mars and those Hubble images led to my first published paper and, eventually, a lifelong career studying the Red Planet.

Jillian Reddy: Systems Engineer, Defense and Commercial Programs (312H)

Back in 2003, I was a freshman in high school. For the science fair, I chose to do a research project on MER and I dug in deep. I spent hours in the library searching for information on the mission. I think I must have read every single press release and news article that existed at the time — when I ran out of those, I wrote to JPL. Some awesome person sent me a whole packet of detailed fact sheets, pictures, and best of all, a giant program sticker. I slapped that sticker on my lab notebook and proudly carried that thing around with me for a whole semester — it made me feel like I was part of the team, even though I was 3,000 miles away from Pasadena. My mom still has that notebook at her house, tucked away in some box.

I went on to win the science fair that year (the first freshman to ever do so and I credit the sticker). More importantly, that project and that interaction with JPL cemented my desire to work here when I grew up. I watched the landings of the MER rovers while biting my nails, and breathed a sigh of relief when the rovers successfully drove off their landers. I went on to study aerospace engineering and, after working elsewhere for a number of years, found my way here.



Reddy posing with her winning MER science fair board.



The Explore Mars sticker that Reddy proudly displayed on her lab notebook.

Julie Townsend: Deputy Section Manager Mobility and Robotic Systems (347)

As an aerospace engineering undergraduate, I was focused on pursuing a career in human space flight. In summer 1997, I landed an internship at Marshall Space Flight Center studying human physiology to enable new space suits to accommodate a wider range of body sizes. Pathfinder's landing and Sojourner's deployment captured the attention of my NASA colleagues, and we followed news about the mission obsessively. At that time, I had never heard of JPL, nor had I imagined that NASA was sending robots to explore planetary surfaces. I thought the people who conceived and flew the Pathfinder mission must be truly remarkable engineers and JPL a mind-bogglingly exciting place to work. Later, as a graduate student at Stanford, I met classmates who had worked at JPL and began considering the possibility that a career at JPL might be possible for me. I started at JPL immediately after finishing that Master's degree.



Julie Townsend in the Mission Support Area during Opportunity Landing in 2004.



Townsend today in the In-Situ Instruments Laboratory.

I'm now the Deputy Section Manager for Mobility and Robotic Systems (347). When I was hired in 2001 to support the Mars Exploration Rovers project, it was a dream come true. Since then I have supported all the rover missions and a variety of robotics technology development prototypes. Now, as Deputy Section Manager, I support robotics staff across a wide variety of flight and technology projects.

Madeline Phelps: Intern with Mars Exploration Program Low Cost Mission Working Group

I was drawn to JPL originally because of the work done in Earth Sciences, but as I learned more about missions being done at Mars, it made me want to work here. It wasn't seeing the rovers or other spacecraft explicitly, but reading about present and future exploration plans.

Seeing each author and their range of disciplines sent me down a rabbit hole to discover more about Mars and the endless possibilities for science and discovery. I was intrigued by its history and the data we have collected without humans ever stepping foot on the planet. It inspired me to work to enable this type of curiosity and discovery through engineering, and combine it with my love for science. Viewing Mars as a system continues to inspire me as JPL works to build infrastructure to



support further exploration — something I now get the privilege to be a part of.

Emily Stough: Deputy Chief Engineer, Juno Project (394B)

I've always been inspired by looking into the night sky. In 8th grade science class, we did a report on the planet of our choice, and mine was Mars. I read about the Viking mission, and also proposed in-situ propellant production for future Mars Missions. I bought this poster at our local Science Museum, and still have it in my office to this day.

I joined JPL in 1999 and have worked on MER, MSL, and InSight — and what a great journey it has been!



Marc D. Rayman: Chief Engineer for Mission Operations and Science (US 3900)



I became fascinated by space and science when I was 4, and I decided when I was 9 that I wanted to get a Ph.D. in physics and work with NASA (but it was a few more years before I did). I loved reading about space missions and one of the first books I read on my own (that is, not assigned at school) was *Mariner IV to Mars* by Willy Ley. I was thrilled to discover it in the public library in Toledo, OH, during the summer between the fifth and sixth grades (when I was 10). It provided powerful fuel for my passion. I still have a paperback copy I bought because I felt I really needed to own it. It is now part of my extensive personal collection of space information and memorabilia.

It did not inspire me to work specifically on Mars missions; rather, it inspired me to work on planetary missions and others that would allow me to reach out and touch the cosmos. I had already heard the universe's irresistible invitation, but learning about Mariner 4 showed me much more clearly how I could answer it — by working at JPL! And doing so has been a dream come true.

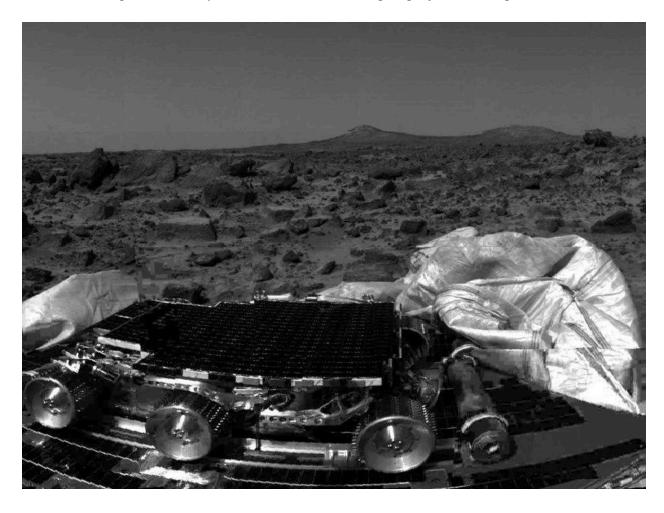
Among my work since here was helping with the laser and optical design of the Mars Observer Laser Altimeter. When I was chief engineer and mission manager on Dawn, we flew by Mars, robbing it of some of its orbital energy around the Sun to help boost the spacecraft on its way to more distant, uncharted worlds. (That is, because of Dawn, Mars now orbits the Sun more slowly by a speed of about 1 inch per 180 million years.)

Nagin Cox: Perseverance Mission Lead Team

I have been working on Mars Rovers since 2000. I have wanted to work at JPL since I was 14 and saw the amazing images coming back from JPL planetary missions and Carl Sagan describing the Mars missions in COSMOS. I am fortunate to have worked "Mars Times" for four different rovers.

Ravindra Bhosle: Instrument System Engineer (386A)

Though I have not worked on a Mars project, I saw the Mars picture of the Viking Lander on the Martian surface in a book my Dad gave me when I was in school in India. I was amazed with the clarity and marveled at being able to see a picture of another world, imagining myself standing there.





That Time Dave Gallagher Photobombed a Group of Interns

By Vincent Robbins

A group of Section 352 interns, all sporting matching JPL internship shirts, gathered on the Mall to snap a photo in front of the iconic JPL sign.

As they were getting ready, a friendly passerby offered to take the photo for them. It wasn't until another JPLer clued them in that the group realized who had just taken their photo: Lab Director Dave Gallagher.

"I was pretty shocked," said intern Asael Caballero Reyes (far left), who recently earned a Bachelor's degree in mechanical engineering from Florida State University and will begin his master's in aerospace engineering at Georgia Tech this fall. "He was really nice. We were a little starstruck."

Fellow intern Roy Blank, also studying mechanical engineering at Florida State, acted fast and asked if Gallagher would join the group for a photo.

"To see the Director of the Laboratory pause his day, completely unprompted, and offer us his time for something as small as a group photo speaks volumes about the culture here at JPL," Blank said. "It was such a memorable, down-to-earth experience, and a great reminder that at JPL, no matter your title or position, we're all part of the same team, working side by side."

Gallagher later shared the moment on his LinkedIn page, writing that he was "excited to have them and hundreds of other interns contributing to our amazing missions this summer!"

And if you're wondering why you're suddenly seeing interns everywhere? The STEM Engagement Higher Education Team has welcomed more than 450 U.S. and Foreign National students this year, with close to 350 turning out on June 25 to kick off the summer with lawn games, human bingo, music, and refreshments on the Building 190 patio.



Events



Register Now: WalkUnitedLA 2025

Registration is now open for <u>WalkUnitedLA 2025</u>, United Way of Greater Los Angeles' annual community walk and fundraiser.

Join the JPL Voyagers — a team of employees, friends, and family representing JPL — on Sunday, July 20, 2025, at the Rose Bowl in Pasadena for a morning of movement, connection, and community impact. Lace up your sneakers, bring your friends and family, and show up with JPL spirit. Every step we take together helps build a stronger future for Los Angeles.

This year's event will support wildfire recovery and rebuilding in Pasadena and Altadena, as well as countywide efforts around housing stability, financial security, and access to education and career opportunities.

How to Register:

- Go to the <u>JPL team page</u>.
- Select "Join Our Team"
- Enter your information. Important note: Please register with your JPL email address.
- Make your donation.
- Select "Complete Registration."
- All registered JPLers will receive an email from their team captain during the week of July
 14 with key details about the meeting time and location for event day.

JPLers are welcome to join the Voyagers and participate virtually, but team members attending the walk in person on July 20 may receive free, exclusive JPL Voyagers-themed gear (see designs below) to proudly show their JPL spirit. Please note: Quantities are limited, and items will be distributed on a first-come, first-served basis that morning at the Rose Bowl.





Caltech and JPL have partnered with United Way of Greater Los Angeles as our corporate charity of choice, supporting its mission to permanently break the cycle of poverty in L.A. County through long-term solutions in education, housing, and financial stability.

WalkUnitedLA is an opportunity for the JPL community to come together in support of these bold goals. Since 2007, the event has raised more than \$11 million and engaged over 130,000 participants.

Universe | July 2025 | Page 18

JPL Family News

Retirees

The following JPL employees recently announced their retirements:

Douglas J. Clark, Org 313E, 40 years

Kathleen D. Armstrong, Org 7000, 31 years

Masoud Jafari, Org 5020, 28 years

Todd S. Shelton, Org 383G, 17 years

Passings

Passings must be submitted through Human Resources, which coordinates with the family of the deceased.

Dr. William I. McLaughlin passed on May 31, 2025 at the age of 90, surrounded by family. He worked at JPL for 28 years on a variety of projects including Viking, SEASAT, and the Infrared Astronomical Satellite (IRAS). He served as the JPL deputy director of astrophysics, the manager of the Voyager 2 flight engineering office during the spacecraft's encounter with Uranus, and manager of the Mission Profiling and Sequencing Section.

He is survived by his four children: daughters Eileen Koons (Mike), and Margot Schultz (Stan); sons William McLaughlin (Graciella), and Walter McLaughlin (Sheree); and grandchildren Ronni, Sean, Amie, Mark, Katie, Abbie, Chloe, and Noah.

Services will be private. The family asks that in lieu of flowers, you gaze up at the sky in wonderment.

-This obituary was submitted by Margot McLaughlin Schultz & Eileen McLaughlin Koons.

Leadership Appointments

This monthly series highlights recent personnel appointments.

Appointments are listed chronologically and alphabetically for appointments effective on the same date.

Curtis L. Collins: Group Supervisor of 347B Applied Robotic Systems on June 2.

Gorang C. Gandhi: Group Supervisor of 348B Advanced Flight Software on June 2.

Cameron E. Goodale: Group Supervisor of 192J Product Lifecycle Management and Computer Aided Engineering on June 2.

Mike D. Verdin: Group Supervisor of 357G Pressure Systems Services on June 2.

Jeffrey Peters: Manager of 193E Network Technologies on June 16.

Matt Bennett: Group Supervisor of 312E Project Systems Engineering for Earth and Europa on June 30.

Jan Dumlao: Group Supervisor of 3317 Section 337 Business Administration on June 30.

Sara J. Hatch: Deputy Section Manager of 3920 Mission Design & Navigation on June 30.