

## Featured Stories



## How 175 JPLers Made a Mission Half a World Away Feel Like Home

By Christian Hill

When Phil Barela thinks about the main challenge NISAR faced in the years leading up to launch, it wasn't the mission's technical complexity, or even the ongoing effects of a global pandemic. It was staffing.

"Staff retention was the single biggest risk," said Barela, project manager for NASA's Earth-observing NISAR mission. "India's a 36-hour trip, door to door. And life happens — people get sick, have kids, their priorities change. We knew we were asking a lot."

He wasn't wrong. Beginning in 2023, a rotating group of JPL engineers, technicians, and integration leads began deploying to India — some more than a dozen times over the course of multiple years — to support

final assembly and testing of the radar satellite at Indian Space Research Organization's (ISRO) Satellite Integration and Testing Establishment (ISITE) facility in Bengaluru.

With 175 unique JPL travelers supporting the mission in person, and many making multi-week trips multiple times a year, the logistical, physical, and mental load was intense.

But thanks to good planning and leadership making people the priority, the project didn't lose a day of schedule due to staffing. Not a single shift was missed over the two-year ATLO campaign in India.

### **Building a Travel Culture from Scratch**

Before NISAR, Barela had experience in overseas work — serving as project manager for the [ExoMars Trace Gas Orbiter](#) in Cannes, France.

"India's different. The travel is hard and much longer. We needed to create reasons for people to say yes — and keep saying yes."

So the team got creative. They worked with JPL leadership, NASA, and vendors on a list of incentives including free laundry, daily travel stipends, improved layovers with time to rest, and shared spaces designated at the hotel for team dinners and activities to unwind and connect.

"People actually wanted to go," Barela said. "We created an environment that supported the mission and the people equally."

**“ We learned how they work. They saw how we work. It's not just cooperation — it's cultural immersion that both sides benefitted.”**

**— Phil Barela - NISAR Project Manager**

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### **Collaborating Beyond the High Bay**

The partnership between JPL and ISRO on NISAR is unprecedented. It's NASA's first major 50-50 mission with India, and each agency contributed its own synthetic aperture radar system — NASA's L-Band and ISRO's S-Band — as well as operations responsibilities. That meant integration had to be seamless, and beyond Teams calls.

"ISRO engineers spent years at JPL during and after COVID, over 65 Indian travelers in total," Barela said. "And then our people started going there. The engagement on both sides was huge. We learned how they work. They saw how we work. It's not just cooperation — it's cultural immersion that both sides benefitted."



*ISRO and JPL team members inside the Air Force C17 at the delivery of the NISAR payload elements to India in March 2023. Image Credit: Courtesy Phil Barela*

There were lessons to learn. Indian teams, Barela noted, tend to triage across multiple missions, while JPL typically assigns engineers to single projects. There were also differences in scheduling expectations and workplace rhythms — like daily tea breaks at 10:30 a.m. and 3 p.m., where everything stops for coffee, cookies, and connection.

“I kind of wish we had the daily, social coffee or tea time at JPL,” Barela laughed.

What started as a risk became a highlight. “The characteristics of this mission made the organization feel flat,” Barela said. “I got to know early career people I’d never met before, just sitting in the lounge at the end of the day. We weren’t just talking shop — we were talking about families, about life. You can’t put a price on that.”

### **The Work — and the People — Behind the Scenes**

With work wrapped up at ISITE, and the spacecraft now at the launch site off India’s southeastern coast, the NISAR team reflects not only a major engineering accomplishment, but the human framework that made it possible. Travel, teamwork, and trust may not be in the mission requirements, but they were essential.

Below is a roundup highlighting several JPLers who made the journey — some for a few weeks, others for several months — back and forth between Southern California and Bengaluru. Collectively, they offer a reminder: even the most sophisticated science missions still come down to people.



## Abby Stieglitz, Lead Flight System Engineer for NISAR

For Abby Stieglitz, NISAR represents a five-year journey filled with long hours, international collaboration, and unforgettable friendships. As Lead Flight System Engineer, she played a hands-on role in final system verifications and flight hardware testing — both at JPL and on-console in Bengaluru. With four trips to India under her belt, Abby embraced it all: power outages, tea breaks, and impromptu weekend explorations with JPL teammates.



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## Bobak Ferdowsi, Flight System Engineer



Flight System Engineer Bobak Ferdowsi brought his trademark energy and deep systems expertise to the NISAR mission — along with an enviable passport stamp count. Over the course of about 20 trips to India, Ferdowsi played a key role in ensuring JPL's radar payload and ISRO's spacecraft worked seamlessly together.

Whether he was testing fault protection logic, bonding with ISRO colleagues over system design, or celebrating a birthday with a NISAR logo painted on his neck, Bobak embraced the mission — and every puppy outside the high bay — with curiosity and camaraderie.

## Ernie Chuang, Radar Digital Electronics Cognizant Engineer

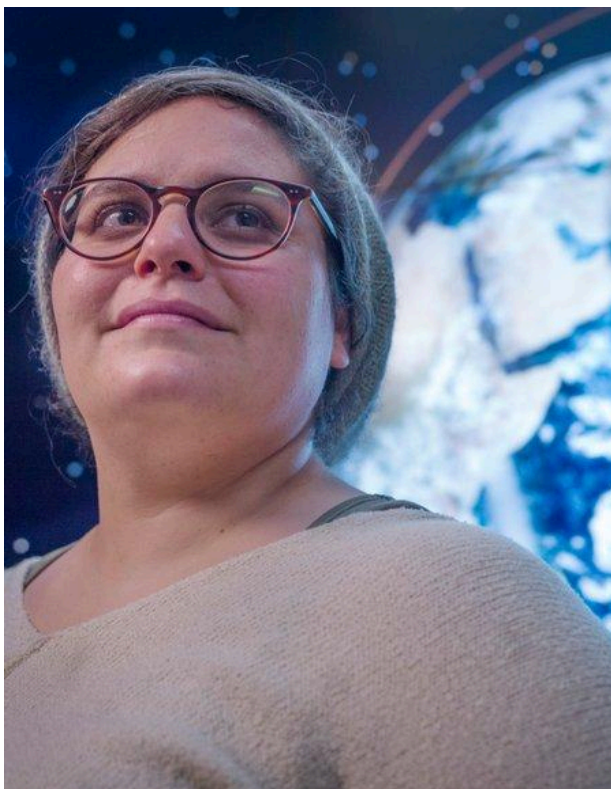
Ernie Chuang has been with NISAR almost from the beginning, and he uses the past 15 years of mission progress he's been part of to measure milestones in his own life.

As the cognizant engineer for the radar's digital electronics, he helped design and deliver one of NISAR's most intricate systems, ensuring that JPL's and ISRO's radar technologies could operate in perfect sync. Over the course of 15 trips to India, Chuang supported critical hardware tests and integration efforts, navigating time zones, technical challenges, and the balance of family life with international travel.



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## Nicole DePasquale, Fault Protection Lead Engineer for NISAR



Nicole DePasquale has spent nearly half her career on NISAR — and she's ready for this defining chapter of her career to launch. As the mission's Fault Protection Lead Engineer, she's helped design one of its most complex and critical systems. Her work ensures that when something goes wrong, the spacecraft can recover on its own, whether it involves JPL or ISRO components.

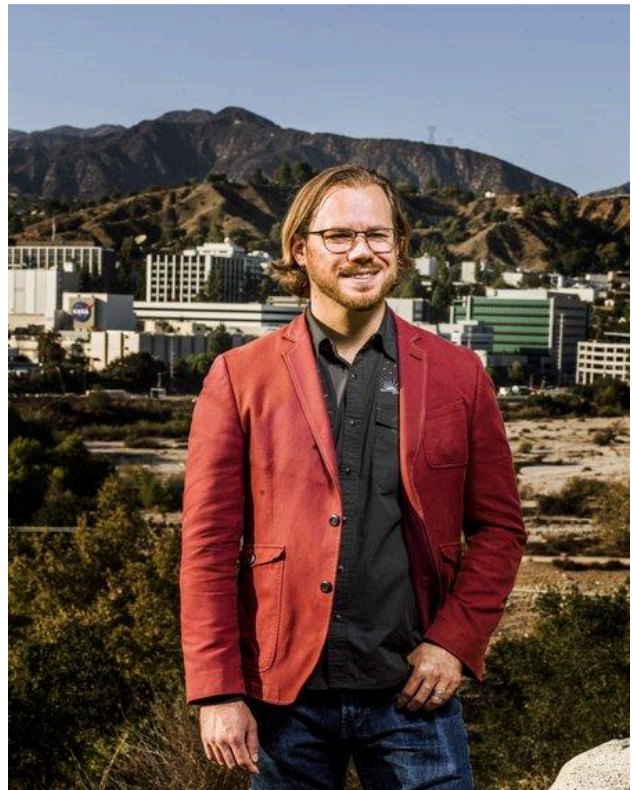
DePasquale's role required tight coordination with Indian partners, countless early morning and late-night calls, and multiple trips to Bengaluru to rehearse real-mission scenarios. Along the journey, she developed connections over shared goals, a strong team bond, and even ISRO's daily tea breaks, which she hopes make their way to JPL one day.



## Scott Nowak, NISAR Mechanical Integration Lead

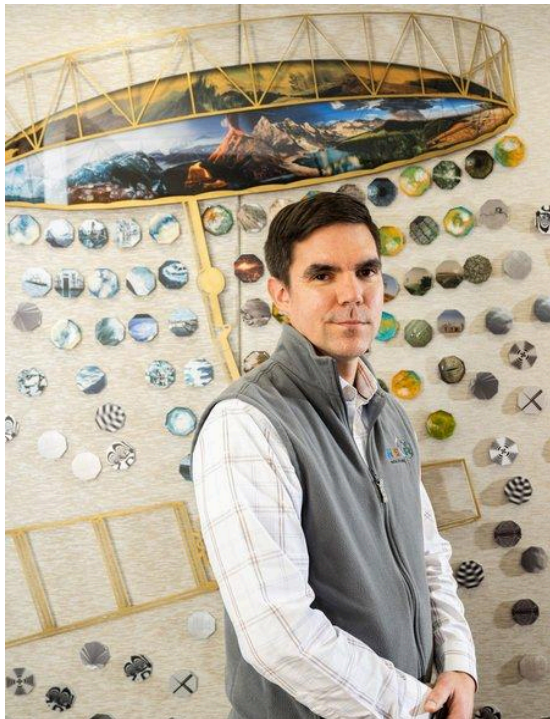
As mechanical integration lead for NISAR, Scott Nowak has been in the thick of the mission's most delicate and defining moments — guiding the hardware as JPL's and ISRO's components came together, piece by piece. Over the course of 10 trips to Bengaluru, he oversaw hands-on operations that fused international engineering into a single spacecraft.

Whether orchestrating crane operations, admiring a sand-painted spacecraft shrine during Durga Puja, or exploring the ancient city of Varanasi on a weekend off, Nowak's experience on NISAR was rich, technically and culturally. Here he discusses how the mission was more than a collaboration — it was a chance to practice humility, share knowledge, and witness firsthand how space exploration can unite people.



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## Steve Horst, Systems Engineer

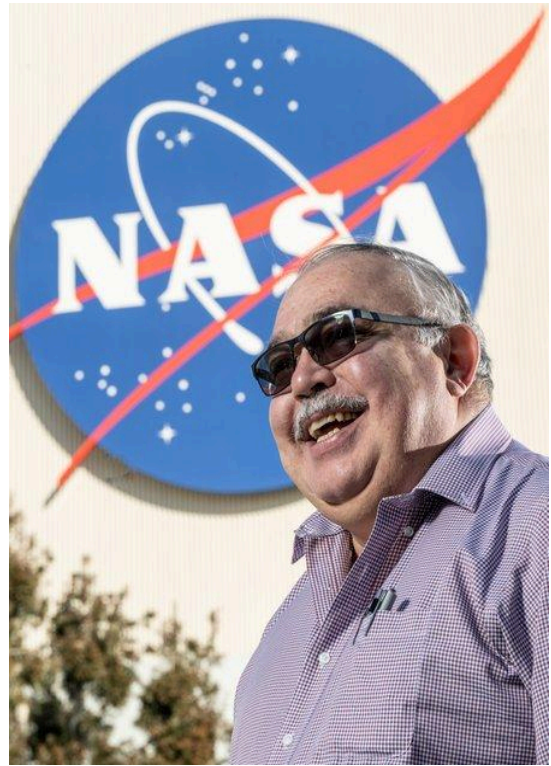


Unlike some of his fellow traveling NISAR team members, Steve Horst only made one trek to India — but that single trip left an outsized impression. As a systems engineer, Horst helped design the spacecraft's transmit/receive modules and later joined the integration and test effort, working through anomalies and processing flight data.

Most of his collaboration with ISRO took place remotely, but his visit to Bengaluru offered a firsthand look at the scale of India's space ambitions, and the warmth of its hospitality. From the expansive ISRO test facilities to the deeply service-minded culture at the Leela Palace, Horst outlines how the work on NISAR presented a rare opportunity to advance science and international understanding concurrently.

## Victor Mora, Payload System Integration and Test Manager for NISAR

Few people have seen more of NISAR's journey than Victor Mora. As the Payload System Integration and Test Manager, Mora has been involved since the earliest planning phases, making more than 30 trips to India over the past seven years. From coordinating the complex delivery and integration of the payload to serving as JPL's primary point of contact on the ground in Bengaluru, he's been a steady presence guiding the mission through its most critical phases.



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## Wendy Edelstein, NISAR Deputy Project Manager



Wendy Edelstein has spent a decade helping shepherd the NISAR mission from design concept to launch pad — first as Instrument Manager and now as Deputy Project Manager. With 29 trips total, and more than 150 days spent in India in the past year-and-a-half as System Integration and Testing ramped up, Edelstein has been at the heart of the mission's complex international collaboration. Her work includes navigating the technical, cultural, and logistical challenges that came with integrating a massive spacecraft half a world away. From “doing the needful” with ISRO partners to joining in on weekend cricket matches with the JPL team, Edelstein sheds light on how tough, meaningful, and ultimately rewarding a partnership like this can be.





## Walking for a Stronger LA: WalkUnitedLA 2025

The JPL Voyagers showed up in force for WalkUnitedLA 2025, bringing enthusiasm, energy, and a strong sense of community to this year's event at the Rose Bowl. Among those participating was JPL Deputy Director Leslie Livesay, who joined in support of United Way's mission and to reaffirm the Lab's ongoing commitment to service and community impact.

To represent JPL in style, Voyagers received swag packs complete with a T-shirt and hat – and wore them proudly throughout the day.

Whether walking in person, participating virtually, or donating from afar, the JPL community helped contribute to United Way of Greater Los Angeles reaching its \$200,000 fundraising goal. Proceeds will go toward wildfire recovery and rebuilding efforts in Pasadena and Altadena, and countywide programs focused on housing stability, financial security, and expanded access to education and career pathways.

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## JPL Shows Up and Shines at the 2025 Aerospace Games

The 21st annual Aerospace Summer Games brought thousands to Torrance to compete in a series of Olympic-style games. The JPL squad took third place behind SpaceX and Northrop Grumman, competing in a range of games including volleyball, pickleball, and soccer.

Below, JPL Project Data Systems Engineer and ASG volunteer organizer Sirina Nabhan shares highlights from the JPL team:

### JPL Highlights from the Field

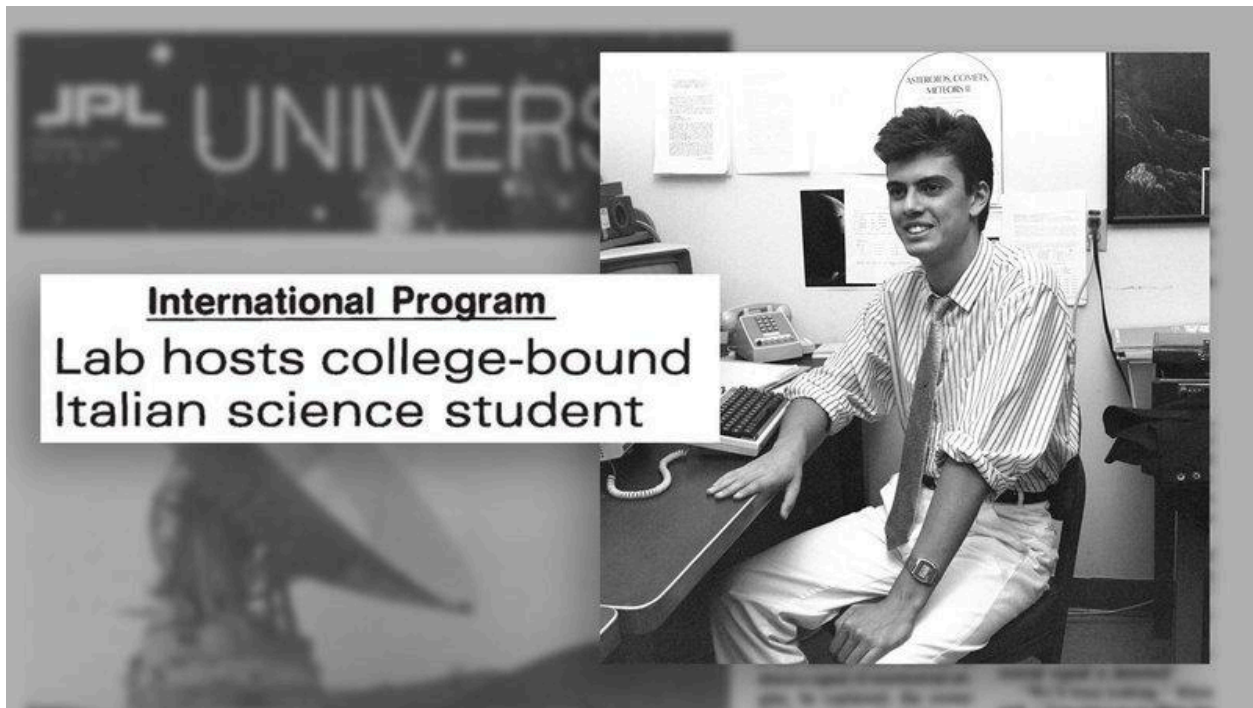
- **282 JPLers attended**, many bringing friends and family to cheer, volunteer, and celebrate together.
- **Full points in the human pyramid**, assembled in just 10 seconds — a new speed record.
- **Relay race champions** and a best-ever placement in tug-of-war.
- **Pickleball and basketball** made their debut.
- Team members for **soccer, volleyball, balloon toss, ultimate frisbee, and dodgeball** practiced for weeks leading up to the event, and many kept practicing even after the games wrapped up.

### Volunteers

- A crew of **20 JPL interns and staff volunteers** kept things running smoothly — handling registration, lunch, crafts, and hyping the JPL crowd.
- Nabhan introduced a **crafts table** this year, featuring coloring books, jump ropes, pom-poms, and temporary tattoos courtesy of the JPL Wellness team.

### Fun Extras

- Many former JPL employees stopped by the table to say hi, grab swag, and share how much they missed the Lab.
- This year's event was made possible by generous support from the Director's Office, which covered registration, lunch, and 300 JPL shirts.



## **International Program** **Lab hosts college-bound Italian science student**

# **Slice of History: From Pisa to Pasadena**

**By Vincent Robbins**

In the summer of 1986, a young Italian who had never stepped foot outside of Europe arrived at JPL — the science-minded high school graduate had been selected for NASA's International Summer Student Program and eagerly seized the opportunity to work on Lab.

While at the Lab, Luigi Civalleri worked in the Geology and Planetary Section of the Earth and Space Sciences Division, under the supervision of renowned JPL astronomer Eleanor Helin.

"Working with Ms. Helin, the Lab's acclaimed asteroid-tracker, Luigi assisted in searching for new asteroids by measuring asteroid positions, and analyzing computer data about them," read a September 1986 article in JPL's Universe newsletter.

"My experience at JPL was mind-blowing ... I felt like a kid in a candy shop. Every day brought fresh excitement," Civalleri said in a June 2025 email correspondence, reflecting on that summer almost 40 years ago. "What struck me most at JPL was the great camaraderie and informality, a far cry from what I was used to at home."

The internship program, funded by a gift from German inventor Arthur Wenke, covered students' travel to the NASA center of their choice and provided a small weekly stipend. Civalleri was hosted by the family of then-Galileo Project Manager [John Casani, who died June 19, 2025](#).

"The Casani family was easygoing and lovely hosts," Civalleri said.

Civalleri returned to Italy that fall to begin a Master's degree in applied mathematics at the University of Pisa. He later built a successful career in science communication and translation, working on Italian editions of bestsellers such as "Guns, Germs, and Steel" by Jared Diamond and "The Elegant Universe" by Brian Greene.

Today, Civalleri is a professor in the Master's in Science Communication program at the International School for Advanced Studies (SISSA), a research university in Trieste, Italy.

*Want to learn more about the history of JPL? Visit [JPL Archives Website](#).*

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## Events



### JPL Night at Dodger Stadium

Get ready for an unforgettable night at the ballpark! All JPLers and their friends and family are invited to this year's **JPL Night at Dodger Stadium** as the Dodgers take on the San Francisco Giants.

This year's event features:

- An exclusive, limited-edition **JPL Dodgers jersey** included with each ticket purchase through the [official JPL group link](#).
- A stadium-wide **Dodgers bobblehead giveaway for all attendees**. The bobbleheads have been known to run out, so get to the game early!
- A **special drone show** that will light up the sky and close out the night.

#### **[BUY YOUR TICKETS NOW \(code: JPL\)](#)**

- Tickets with code JPL are available for a limited time on a first-come, first-serve basis.
- Seats on the Reserve level of the ballpark start at \$69.60 per ticket, not including fees.

Don't miss out on this double dose of Dodgers swag and JPL pride. Let's show our JPL spirit and cheer on the Dodgers together!

**Questions?** Please contact [cos.bus.ops@jpl.nasa.gov](mailto:cos.bus.ops@jpl.nasa.gov).

## FAQ

### **Can I purchase the jersey if I am unable to attend the game?**

No. The only way to receive a jersey is by purchasing a ticket through the JPL group link and picking it up at the stadium when the gates open on the day of the event.

### **How do I pick up my jersey?**

The Dodgers will send you an email with instructions on how to retrieve jerseys before the game.

### **What size jerseys will be made available?**

Adult medium and extra large.

### **Will JPL sell any leftover jerseys after the game?**

No. Any leftover jerseys will be retained by the Dodgers and will not be sent to JPL.

### **What if I do not want to purchase jerseys?**

This year's ticket package includes the special edition jersey. There is no option to opt out of receiving the jersey when purchasing tickets through the link provided above. You will receive one jersey per ticket.

### **What sections are reserved for JPLers?**

Seats available to JPLers through the link above are in the Reserve Level.

### **Is there a limit on the number of tickets I can purchase?**

No. JPLers are welcome to bring as many friends and family members as they'd like.

### **Do I have to pay for stadium parking?**

Yes, you will need to purchase parking for the stadium. You can add parking to your tickets through the purchase link or purchase separately on the Dodgers' website later. [Learn more](#).

### **How do I get to Dodger's Stadium via public transportation?**

A free Dodger Stadium Express service from Union Station starts 90 minutes before game time and ends 45 minutes after final out.

### **What if I don't see my tickets on the MLB app?**

If you have any questions or require troubleshooting assistance with the MLB Ballpark app, please contact Customer Service online or call toll-free at 866-244-2291 (US) or 315-203-6761 (International). Customer Support remains open until the conclusion of the last game each day.

For more detailed information on Dodger Stadium policies — such as their Accessibility policy, Clear Bag requirement, etc. — please review the [stadium's information guide](#).

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# JPL Family News

## Retirees

The following JPL employees recently announced their retirements:

**Mark D. Hofstadter**, Org 3222, 32 years

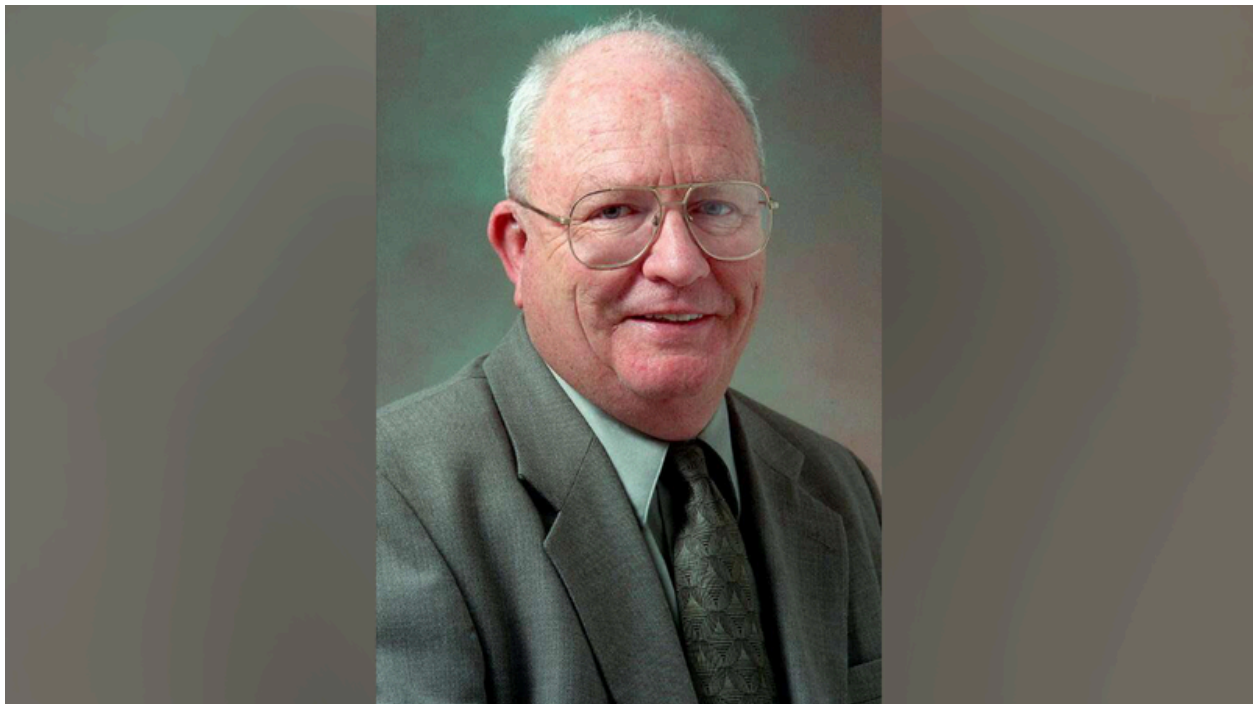
**Barbara J. Marin**, Org 3313, 31 years

**Randy T. Odle**, Org 8000, 21 years

**Eric Nicolich**, Org 345B, 18 years

## Passings

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



**By Vincent Robbins**

Former Associate Director for Flight Projects and Mission Success **Thomas R. Gavin** died on Friday, July 11, at the age of 85. Gavin held several leadership positions and played an important role in several flagship missions over his five-decade career.

Born in Upper Darby, PA, Gavin earned a bachelor's degree in chemistry in 1961 from Villanova University in Pennsylvania, before joining JPL on Nov. 19, 1962, as an Associate Engineer. In his early years at JPL, he worked in various positions in the Office of Reliability and Quality Assurance and served as Product Assurance Manager on the Voyager mission. Gavin then went on to serve as manager of the Hardware



Assurance Division from 1989 to 1990, when he was appointed spacecraft system manager for the Cassini Program. He served in that capacity through the mission's successful launch.

In 1997, Director Ed Stone appointed Gavin to serve as deputy director of Space and Earth Science Programs Directorate, overseeing spacecraft design and development for JPL's new generation of "faster, better, cheaper" space science missions.

In 2001, Gavin was appointed as JPL's Associate Director for Flight Projects and Mission Success, overseeing the new Space Science Flight Projects Directorate, managing the implementation of all non-Earth orbiting space science projects, including Genesis, Mars Odyssey, Mars Exploration Rover, Spitzer Space Telescope, and Galaxy Evolution Explorer projects.

Gavin's tenure and impact on space exploration were recognized both within NASA and by the broader space community. He received NASA's Exceptional Service Medal in 1981 for his work on Voyager, NASA's Medal for Outstanding Leadership in 1991 for Galileo, and NASA's Outstanding Leadership Medal in 1999 for Cassini. In 1997, he received Aviation Week and Space Technology magazine's Laurels Award for outstanding achievement in the field of space.

In 2003, Gavin was honored as a fellow of the American Astronautical Society. "I owe this honor to the hard work of all the engineers at JPL who work on the flight projects," Gavin said at the time of the prestigious distinction.

After his retirement in 2014, Gavin continued to consult for JPL and advise the National Science and Technology Council.

Tom is survived by his wife of 64 years, Elizabeth (Betty), his four children Tom Jr., Michelle Green, Jim, and Colleen Franklin. His family legacy includes 16 grandchildren — Kathleen, Richard, Patrick, Meghan, Mathew, Kaela, Scott, Shannon, Sean, Cody, Blake, Wyatt, Cara, Zachary, Harry, and Kelly — and 10 great-grandchildren: Henry, Jack, Thomas, Nova, Desmond, Rocky, Jane, Adalynn, Harper, and Stevie.

*Funeral services will be held on Thursday, Sept. 4, 2025, at 11 a.m. at St. Clare of Assisi Catholic Church, 19606 Calla Way, Canyon Country, CA 91351.*