

GRAA NEWSLETTER

P.O. Box 1184, Greenbelt, MD 20768-1184

<https://GoddardRetirees.org>

<https://www.linkedin.com/groups/13146491/>

September 2026: 42nd Year of Publication

UPCOMING LUNCHEONS: We will meet at 11:15 AM on September 8th at the American Legion Post #136 at 6900 Greenbelt Road. ***Reservations must be made no later than the Wednesday before the luncheon*** by contacting graalunch@gmail.com (preferred) or calling 410-709-8889 by **Wednesday, September 2nd**.

Sep 8	 Dr. Ira Thorpe Project Scientist, Laser Interferometer Space Antenna (LISA), NASA Goddard <i>"Listening to the Dark Universe with LISA"</i>
Oct 13	 Dr. Todd King Program Manager, Quantum Space, GRAA Member <i>"From Goddard to Quantum Space"</i>
Nov 10	Dr. Luke Oman STRIVE Project Scientist, NASA Goddard <i>"STRIVE Earth System Explorer Mission"</i>

WELCOME TO NEW MEMBERS:

We are delighted to welcome the following new members:

- Odessia Becks
- John Gagosian

TREASURER'S REPORT: Jackie Gasch received donations from: Carl Stahle, who gave in memory of Steven Derdeyn, and Lynn Sanders, who gave in memory of Beverly Wildoner and Jody S. Fillmann. Please know that all GRAA operating costs are covered by donations. Donations can be made in person at a GRAA luncheon, or by check to GRAA at P. O. Box 1184, Greenbelt, MD 20768-1184.

COMMENTS FROM TONY COMBERIATE AND CARL STAHL

Our August speakers were **Dr. Jennifer Wiseman**, Hubble Space Telescope (HST) Senior Project Scientist, and **James Jeletic**, HST Deputy Project Manager, who presented *"The Hubble Space Telescope: Decades of Discovery."*

Mr. Jeletic began with a history of The Hubble Space Telescope, tracing its origins to a 1946 proposal by astronomer **Lyman Spitzer**, who advocated for a telescope in space that could reveal phenomena "not yet imagined." He then described the spacecraft's design, its capabilities, and the upgrades made during five manned servicing missions conducted between 1993 and 2009.

Since its launch in April 1990, Hubble has made more than **1.7 million observations**, contributed to over **23,000 peer-reviewed scientific papers**, and generated more than **1.4 million citations**. Scientists from **41 countries** have submitted successful observing proposals. Although Hubble has observed only about **0.1% of the sky**, it has detected objects as distant as **13.4 billion light-years** from Earth.



Mr. Jeletic attributed Hubble's remarkable longevity, now more than 36 years and still operating, to its extensive built-in redundancy. Key systems with redundant capability include the Space Telescope Imaging Spectrograph, Advanced Camera for Surveys, Command and Data Handling subsystem, communications transponders, aperture door motors, and Rate Gyro Assemblies. Based on the spacecraft's current health, he expects Hubble to remain operational well into the 2030s. While statistical projections indicate a 50% probability of atmospheric reentry by the end of 2033, a conceptual future orbit-boost mission could extend its lifetime even further.

Dr. Wiseman, who has served as HST Senior Project Scientist for 16 years, showcased some of the telescope's most spectacular images and highlighted how Hubble has transformed humanity's understanding of the universe. Among its many scientific milestones, Hubble achieved numerous groundbreaking firsts, including:

- The first precise measurement of the universe's expansion rate.
- The first detection of elements from the early universe.
- Confirmation that supermassive black holes exist.
- Evidence that nearly all galaxies contain central black holes.
- Images of colliding astronomical objects.
- Detection of oxygen in a moon's atmosphere.



- The first image of a stellar surface beyond our Sun.
- Visual evidence of planetary building blocks.
- Detection of an exoplanet atmosphere.
- Evidence of a planet's atmosphere evaporating into space.
- Detection of an organic molecule in an exoplanet atmosphere.
- Images of an asteroid with tails.
- Possible water-vapor plumes on Europa.
- Space-based images of an asteroid breaking apart.
- Imaging of a previously predicted supernova.
- Images of the most distant known galaxy.
- Images of the most distant individual star.
- Detection of water vapor on an exoplanet in the habitable zone.
- Ultraviolet imaging of an exoplanet in formation.
- Evidence suggesting a possible moon orbiting an exoplanet.
- Detection of a comet reversing its spin.

Hubble played a central role in the discovery that the expansion of the universe is accelerating, leading to major advances in the study of **dark energy**. Research based on this Hubble data contributed to the work recognized by the **2011 Nobel Prize in Physics**.

Hubble's instruments cover portions of the ultraviolet and infrared spectra while observing the entire visible-light range. As a result, it continues to complement major observatories such as **Webb, Roman, Rubin, Euclid**, and the **Extremely Large Telescope**. It was originally conceived as part of NASA's family of Great Observatories, spanning the electromagnetic spectrum from gamma rays and X-rays to visible and infrared wavelengths. Hubble remains uniquely valuable for ultraviolet observations, time-domain astronomy, and the study of transient events such as supernovae.

The Hubble data archive continues to enable new discoveries. Dr. Wiseman noted that researchers recently used artificial intelligence techniques to identify more than 1,300 anomalous astronomical objects in archival data within only a few days. These efforts demonstrate how Hubble's decades of observations continue to support current and future missions, including the Roman Space Telescope and the proposed Habitable Worlds Observatory.

Despite operating far beyond its original design life, Hubble continues to produce an increasing number of scientific publications each year. Dr. Wiseman recommended the free book *Not Yet Imagined: A Study of Hubble Space Telescope Operations* by Christopher Gainor (NASA SP-4237), available in both PDF and EPUB formats. She also suggests checking out the Hubble site, which has all the images and resources mentioned, at: <https://nasa.gov/hubble>.

Also in attendance was **David Leckrone**, Hubble's Senior Scientist from 1993 to 2010 and Dr. Wiseman's predecessor. He is the author of *Life With Hubble: An Insider's View of the World's Most Famous Telescope*, which is available through Amazon and other booksellers.

Suggestions for Luncheon Topics and Speakers

We welcome your suggestions for specific topics and speakers for our monthly luncheons. It can be a speaker outside of Goddard and NASA as well as on a non-technical topic you think would be of interest to our luncheon attendees. Please contact Carl Stahle (carl.m.stahle@gmail.com) who has the responsibility to organize our Luncheon Speakers' Program.

GRAA Luncheon Attendance

We've enjoyed a very good year so far for our GRAA Luncheon attendance. We had 77 attendees for our August Luncheon with 19 members (not speakers or guests) participating for the first time in 2026. We have averaged 65 attendees each month and including speakers, guests, and our summer interns/mentors, we've had a total of 206 different people attend at least 1 luncheon. If you have not attended for a while or have never attended, you are always welcome.

Assessment of Technical and Scientific Capabilities at NASA Goddard

The National Academies of Sciences, Engineering, and Medicine is conducting an assessment of the technical and scientific capabilities at NASA Goddard Space Flight Center. You can follow the progress of the study committee and view the recorded public presentations with questions and answers from the study committee. On August 4, Carl Stahle presented on behalf of GRAA to answer questions from the study committee. GRAA thanks members who provided input. You can contact him (carl.m.stahle@gmail.com) for an electronic copy of the presentation. Go to the events tab to find the recording: <https://www.nationalacademies.org/projects/CAST-PSSI-26-04>.

NASA Swift Boost Mission

Due to an ongoing commercial spacecraft attitude control issue, NASA and Katalyst Space decided the LINK spacecraft will not capture or boost the Swift satellite to a higher altitude to extend its science mission as planned. However, LINK still will attempt to conduct rendezvous and proximity operations with NASA's Neil Gehrels Swift Observatory to demonstrate key capabilities for the future of space exploration. Monitor NASA's Swift blog for continued updates: <https://science.nasa.gov/blogs/swift>.

Roman Space Telescope

You can follow real-time updates, milestones, and behind-the-scenes content on NASA's official [Nancy Grace Roman Space Telescope Blog](#). The upcoming flagship observatory is targeted to launch on August 30, 2026, on a SpaceX Falcon Heavy rocket.

Wrenches down for Goddard's LEMS Payload

NASA has declared "wrenches down" on the first completed payload designed for Artemis astronauts to deploy on the Moon's surface. Engineers working on NASA's Lunar Environment

Monitoring Station, or LEMS, have completed hardware development and testing and the payload is ready for its permanent home near the lunar South Pole. With the hardware complete, LEMS is ready to support one of the Artemis program's core goals: enabling sustained lunar science and exploration. Dr. Mehdi Benna gave a talk about LEMS at our March 2025 Luncheon. <https://science.nasa.gov/missions/artemis/nasa-completes-astronaut-deployed-science-instrument-for-lunar-surface/>

Dr. Jeremy Werdell Awarded 2026 Nordberg Award for Earth Science

Dr. Jeremy Werdell was awarded the 2026 Nordberg Award for Earth Science for his groundbreaking work in ocean color remote sensing and for his successful leadership of NASA's PACE mission for which he has been Project Scientist since 2012. This is Goddard's highest award in Earth Science. His scientific vision, leadership, and exceptional community-building brought PACE from concept to orbit to transformative science. His efforts in improving ocean color remote sensing have led to internationally adopted algorithms and have influenced the design and validation of many missions. Jeremy gave luncheon talks for GRAA about PACE in April 2025 and September 2023.

WHAT'S UP WITH OUR MEMBERS:

Your colleagues and friends would enjoy hearing about your life experiences after Goddard. Please feel welcome to send a concise message (<100 words, photos welcome) to Pam Sullivan (zsullivan@alum.mit.edu). Inputs may be edited for content and length.

Jeff Volosin has a new role as the Department Head for Engineering at **Capitol Technology University**. Since retiring from NASA two years ago, he has found being an instructor and mentor to aspiring engineers to be incredibly rewarding. To all his former colleagues looking for the opportunity to guide the engineers of the future, let him know if you would like to teach a class, give a guest lecture or mentor his students. Also, if your company would like to join the Engineering Advisory Board, or if you are looking for students to invest in as interns or as sponsors of capstone projects - let him know - it takes a village. Contact Jeff at jfvolosin@captechu.edu.

Bill Danchi was selected for a Fulbright award for the 2026–2027 academic year, as the Fulbright Program celebrates its 80th anniversary. Fulbright is a program of the U.S. Department of State that delivers meaningful impact at home and abroad, strengthening our economy, building a globally competitive talent pipelines, and fostering international partnerships that advance America's economic prosperity and national security, and our shared future. He will be working in France as part of a large observing astronomy program.

FROM THE GODDARD ARCHIVES: On September 15, 2018, a Delta-II rocket launched ICESat-2. This was last flight of the Delta-II launch vehicle after 29 years as a NASA workhorse. ICESat-2 continues to provide ice sheet mass balance and vegetation canopy data.

ACTIVITIES FOR MEMBERS:



Recreational and Volunteer Opportunity: The **Greenbelt Labor Day Festival** happens on September 4-7 in Old Greenbelt and includes carnival rides, live music, food trucks, craft booths, a photo show, art show, talent show, and parade! Find the festival details at <https://greenbeltlaborday.com/>. If you would like to be part of the volunteer committee, please reach out to greenbeltlaborday@gmail.com.

Goddard 2 Mile Fun Run is on September 30: The 102nd running of the Goddard 2 Mile Run will be on September 30 at noon. The race starts and finishes in front of the Goddard Child Development Center. It's a competition for some, a team event for some, a fun run/walk for others. Keep the tradition going and come out to do this race or volunteer. Register at <https://runsignup.com/Race/MD/Greenbelt/NASAGoddard2Miler>. Grab a slice of pizza afterwards. Email james.e.leake@nasa.gov to volunteer, it's easy!

GEWA Fall Festival on October 29: GEWA is having a Fall Festival for friends and family on October 29 from 10 am to 2 pm on the Greenbelt campus. There will be vendors, a car show, food trucks and children activities in the Building 8 west parking lot and mission tables and activities will be set up around campus. GRAA members are welcome to attend. You can use your retiree's badge to get on campus. If you don't have a retiree's badge, let us know and we'll work it out for you with most likely a visitor's badge (email carl.m.stahle@gmail.com).

Medicare Presentation Materials Available: GRAA had a virtual presentation on Medicare on May 18th by Patrick Hamilton from the Centers for Medicare & Medicaid Services (CMS), within the Department of Health and Human Services. You can request the presentation charts and Q&A document from Carl Stahle at carl.m.stahle@gmail.com.

DIRECTORIES AND NEWSLETTERS: Send your email address to goddardretirees@gmail.com to get our monthly Newsletters. Quarterly hardcopy Newsletters are mailed to the retirees with only residential addresses in our files. Please send your home address to be listed in the biennial GRAA Membership Directory, only available as hardcopy mailed to members. These mailings are supported by donations to GRAA, P. O. Box 1184, Greenbelt, MD 20768-1184.

REMEMBERING OUR FORMER COLLEAGUES:

Thomas R. Harbach passed away on July 11, 2026. Thomas started working at GSFC in 1960 and spent his 30+ year career in the environmental test organization (Code 321 when he began, eventually becoming Code 754). He worked for NASA all over the world: Greenbelt, Virginia, California, Florida, Italy and Africa, on many projects including the Cosmic Background Explorer (COBE), Hubble Space Telescope, and Apollo 11. He also supported the San Marco program, which resulted in the launch of the first Italian-built satellite. Thomas retired in 1994.

Ann Derby, 82, passed away on July 18, 2026. Ann began her NASA career in 1967 at what was then called Wallops Station. Over her 28-year career, she held various roles in personnel management, eventually becoming the head of the Wallops Office (Code 111.3) within GSFC's Office of Human Resources. Ann retired in 1994.

John D. Mangus, 91 passed away on August 13, 2026. John began at GSFC in 1962 and within a few years had risen to become the Head of the Optics, Electrochemical, and Plastics Branch (then Code 283). He led that group for more than two decades through its transition into the Optics Branch (Code 717). John contributed to many ground-breaking missions including Voyagers 1 & 2, where his team built the instruments for the first probes to capture detailed images of our solar system's planets. On COBE, his telescopes mapped the first light from the Big Bang. For Hubble, John developed the instrument fix to remedy the manufacturing flaw in the telescope's primary mirror, and he was responsible for constructing the technical case for the Department of Justice to sue the contractor for their mistake. On JWST, John was the senior optical advisor for the instruments, work that he continued as a consultant after his retirement in 1994.

Gayle J. Negri, 78, passed away on August 13, 2026. Gayle became a travel agent at GSFC in 1965 before later moving to the U.S. Navy and private industry. She was active in community theater, acting and directing in local groups including Goddard's Music and Drama (MAD) Club. It was there that she achieved her crowning achievement, the successful direction of *Singin' in the Rain*, her favorite show. A viewing of her inurned ashes will be held at the Donaldson Funeral Home, P.A. in Laurel, MD on August 28, 2026, from 2-4 and 6-8 PM.