GRAA NEWSLETTER

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

May 2026 **https://GoddardRetirees.org** **42nd Year of Publication**

UPCOMING LUNCHEONS: We will meet at 11:15 AM on May 12th 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, May 6th.**

May 12		**Dr. Stephanie Getty**, Acting Director of the Sciences and Exploration Directorate. **"Eyes on the Earth, Solar System, and Universe: Updates from the Sciences and Exploration Team at NASA Goddard"**
June 9		**Dr. Dong Wu,** Deputy Principal Investigator for PolSIR Mission, NASA Goddard **"PolSIR: NASA's Submillimeter Polarimetric Mission for Diurnal Ice Cloud Science"**
July 14		**Dr. Shawn Domagal-Goldman** Director of the NASA's Astrophysics Division at NASA HQ **"NASA Astrophysics Portfolio and Plans"**

TREASURER'S REPORT: Jackie Gasch received donations from: Carl Stahle in memory of Jordan Camp, Ralph Welsh, Anne Thompson and Ellen Herring. 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 mailed to P. O. Box 1184, Greenbelt, MD 20768-1184.

GRAA BOARD OF DIRECTORS ELECTION: GRAA will hold an election at its May 12th meeting to elect its Board of Directors for the next two years. GRAA is administered by a Board of Directors (BOD) of seven GRAA members elected by the membership. The BOD shall elect the Director of the Board, a Vice President, a Secretary, and a Treasurer. The Director of the Board serves as the President of GRAA. **Per the GRAA By-laws, the BOD members are elected by the GRAA members present at the monthly meeting.**

Here are the candidates for the GRAA Board of Directors for the term June 2026 – June 2028:

Bill Anselm
Ron Browning
Tony Comberiate
Jackie Gasch
Barbara Hamilton
Jan Kalshoven
Dan Krieger
Dave McComas
Carl Stahle

Members present at our May 12th meeting will be provided ballots and asked to vote for **no more than 7 candidates.** Results will be announced in our June newsletter.

We thank all the candidates who have volunteered to serve on the BOD!

WELCOME TO NEW MEMBERS:

We are delighted to welcome the following new members:

- Deborah Amato
- Michael Biskach
- David Campbell
- Dave Everett
- Kristine Glass
- Phyllis Hestnes
- Doris Jallice
- Leslie Ketterman
- Jean-Marie Lauenstein
- Eric LeMay
- Nicholas Shur
- Kamale Thakore
- Barbara J. Thompson

RETIREMENT BADGES:

For those members officially retired from Federal service, you can get a retirement badge from the Goddard Badging Office (Greenbelt: Bldg. 17, 301-286-1347; Wallops: Bldg. N-1, 757-824-2222, Hours of Operation, Mon-Fri, 7 am to 3 pm). The retirement badge will allow you access

for GEWA sponsored events (examples: Music and Drama Club theater, Running Club 2-mile Fun Run, events at the Recreation Center) and the public areas of the campus (examples: Building 1 at Greenbelt, auditoriums for colloquia, recreational areas) where you show your badge to the security guard at the gate and tell them why you are coming on campus. If you are specifically visiting an employee, you should arrange for a visitor's badge.

WHAT'S UP WITH OUR MEMBERS:

Your colleagues and friends would enjoy hearing about your life experiences after Goddard before they see your name in our "Remembering Our Former Colleagues" section. News of interest to our members could be professional, volunteer activities, awards and recognition, a personal achievement, or an unusual adventure or hobby. 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.

Christa Peters-Lidard has found retirement to be an excellent time to stay engaged in science while also making more room for the things she loves most: spending time with family and friends, getting outside, and setting her own schedule. Since stepping away from NASA, Christa has taken on a new role as Distinguished Visiting Scientist at Schmidt Sciences, focusing on a new Virtual Institute for Earth's Water. She was honored to be elected as an American Association for the Advancement of Science (AAAS) Fellow "For distinguished contributions to advancing hydrological science and applications, and for scientific leadership at NASA Goddard Space Flight Center." She has also settled into life on Maryland's Eastern Shore, bought a boat, and is spending more time working on her golf game. She recently enjoyed traveling with family, including visits to her 10th and 11th U.S. national parks — Guadalupe Mountains National Park and Carlsbad Caverns National Park.

Harry Shaw: My wife and I have a startup, Xyngal Morph LLC. We are pursuing technology development ideas in quantum, AI and other areas where we have specialized expertise. The photo in the attachment is of us at the TEDCO 2025 Entrepreneur Expo in College Park, MD.

Pictured from L to R: Dr. Malcolm Tyson (TEDCO executive), Dr. Deborah Preston and Dr. Harry Shaw (Xyngal Morph), Dr. Erika Jones (former lead for Quantum Computing in GSFC's Exploration and Space Communications division) and Barbara Adde (retired Policy and Strategic Communications Director for Space Communications and Navigation at NASA).

FROM THE GODDARD ARCHIVES: May 1, 1959, the Beltsville Space Center was renamed Goddard Space Flight Center. At that time, Goddard led the human space flight program, Project Mercury: although the project was located at the Langley Research Center, the lead Bob Gilruth reported to the Goddard Director. The project later moved to Houston when the Manned Spacecraft Center was established in 1961.

COMMENTS FROM TONY COMBERIATE AND CARL STAHLE

Our April Luncheon speaker was Dr. Antti A. Pulkkinen, the Director of the NASA Office of JPL Management and Oversight (NOJMO). NOJMO is the NASA Headquarters on-site government organization at JPL. Dr. Pulkkinen previously served as Director of the Heliophysics Science Division at Goddard and as the Director of Goddard's Space Weather Research Center. His presentation, entitled "*Space Weather: The New 'Weather' of a Technological Society*" explained space weather in everyday terms and showed how solar activity travels from the Sun to Earth and throughout our solar system. Modern society runs on invisible threads: satellites, GPS timing, wireless communication, and electric power. Space weather is the "weather" that can tug on all of them, and it also paints the sky with breathtaking auroras when solar activity is high. Powered by the Sun, space weather includes eruptions and variations in solar output that change the radiation and magnetic environment around Earth and throughout the solar system. When strong events arrive, they can disturb satellite electronics, degrade GPS accuracy, interrupt radio communications, raise radiation exposure for astronauts and high-altitude flights, and —during extreme storms — stress power grids and other critical infrastructure to the point of collapse.

The three top goals of Heliophysics research, as described in the last decadal survey are: the Fundamental Physical Properties, meaning our scientific understanding about the physical processes that operate throughout the heliophysics domain; Linking between Physical Properties and Fundamental Physics Research, which is understanding how those fundamental processes work (e.g. how the solar wind gets transported throughout the entire solar system); and Improving the Understanding of Hazards to our Infrastructure and Humans in Space. Two thirds of the work of conducting heliophysics science is fundamental research and one third is focused on societal impacts.

Heliophysics is studied across a range of domains, from the sun, where the solar corona and coronal mass eruptions are unleashed, through the heliospheric domain, where these flows coming from the sun get transported throughout the entire solar system, to the Geospace domain, where these flows interact with the Earth's magnetosphere and magnetic field and can trigger secondary processes such as auroras. The Parker Solar Probe is working in the heliospheric domain, making the closest approach within 9 solar radii to the Sun this summer, collecting observations about the physical processes that are triggered by solar eruptions. Heliophysics also studies the fundamental physical processes, such as magnetic reconnection, where magnetic field lines break and reconnect, releasing stored magnetic energy as kinetic energy, heat, and particle acceleration. NASA's Magnetospheric Multiscale (MMS) mission lead by Goddard consists of four identical spacecraft launched in March 2015 to study magnetic reconnection.

Heliophysics research provides an understanding of how the sun affects our planet. NASA's Geospace Dynamics Constellation (GDC) is a strategic mission designed to study Earth's upper atmosphere – the ionosphere-thermosphere system – by measuring how it responds to energy

from the sun and magnetosphere. Goddard leads GDC and was competitively selected to build many of its instruments. The Northern Lights used to be a scary thing to see but nowadays have become an entertainment activity: in some of the northern European locations, companies take tourists on Northern Light tours. The same energetic particles that ignite the auroras can also deposit electric charge on the surface of spacecraft potentially causing discharges that harm the electronics. During major space weather storms, some airline operators need to reroute their flights to fly through regions where they still have communications. Magnetic storms can impact power grids to create large electric currents which may cause regional electrical blackouts.

One key focus of Space Weather is the radiation exposure hazard for astronauts in the Artemis program where astronauts will travel to the Moon and Mars outside the protective magnetic shield of the Earth's radiation belts. Goddard's Moon to Mars Space Weather Analysis Office constantly monitors and reports on the space through which the astronauts are traveling. It supported the Artemis II mission to monitor for solar outbursts to provide sufficient warning to the crew so they could seek shelter from high radiation exposure.

Dr. Pulkkinen explained how we measure space weather conditions in real time, and discussed what NASA is doing — through missions, models, and partnerships – to advance space weather forecasting and to support safer, more reliable technology on Earth and safer human exploration beyond it. It's only through human innovation and the introduction of new technologies that we became knowledgeable of space weather effects and how to mitigate them.

Goddard Work on Artemis II Mission

Goddard contributed to many aspects of the successful Artemis II mission. The lunar science team, led by Goddard, helped train the astronauts before they left, and were in direct communication with them, walking them through the process of photographing and describing locations on the Moon's surface. Our Moon to Mars Space Weather Analysis Office constantly monitors and reports on the space through which the astronauts are traveling. And our Space Communications and Navigation Program manages the Near Space Network, which maintains the integrity of the communication and navigation systems. GSFC also led the successful demonstration of an optical communications link between the Orion spacecraft and the Earth to demonstrate the capability to transmit data at higher speeds. Goddard's Katherine Johnson Independent Verification & Validation (IV&V) Facility analyzes system, software, and security products to reduce cybersecurity risk and improve the integrity of mission software. Our friends at Wallops supported the launch from the Bermuda Tracking Station, where they operated the telemetry antennas to test, simulate, and track the Artemis II space vehicle. Lastly, "Rise" — the plush zero-gravity indicator Moon Mascot flying along with the crew — was hand-made here by one of our own thermal blanket technicians.
https://www.linkedin.com/feed/update/urn:li:activity:7448379759547342848/

ACTIVITIES FOR MEMBERS:

Volunteering Opportunities:

The **Goddard Visitors Center** has a need for someone to cover the Front Desk of the Visitor Center on Friday mornings from 10am to 1pm. They would greet visitors as they arrive, answer the phone, and hand out and then check scavenger hunts. Please contact Amanda Harvey at 301-286-9041 or amanda.c.harvey@nasa.gov

Opportunity for Virtual Informational Medicare Presentation:

GRAA will have a virtual presentation on Medicare on May 18th (2 - 3 pm) from a representative from the Centers for Medicare & Medicaid Services (CMS), within the Department of Health and Human Services. CMS offers non-commercial, educational presentations that provide clear, unbiased information on topics including: Medicare coverage and benefit options, prescription drug coverage, and using Medicare.gov. There will be plenty of time for questions. If you would like to participate, please send an email (carl.m.stahle@gmail.com) or text (240-814-0450) to Carl Stahle so we can send you details for the meeting.

GRAA IS ON SOCIAL MEDIA: We are now on LinkedIn, the world's largest professional network. Members can visit linkedin.com and search for NASA Goddard Retirees and Alumni Association. You are welcome to be a follower of this group.

DIRECTORIES AND NEWSLETTERS: Send your email address to goddardretirees@gmail.com to get our monthly Newsletters**.** Past Newsletters and links to videos of the talks are on our website https://goddardretirees.org. Multi-month abstracts of Newsletters are mailed to the retirees with only residential addresses in our files. We depend on retirees to furnish their home addresses to be listed in the biennial GRAA Membership Directories, only available as a mailed hardcopies to members. These mailings are supported by donations to GRAA, P. O. Box 1184, Greenbelt, MD 20768-1184.

REMEMBERING OUR FORMER COLLEAGUES:

Debra Ann Norton, 71, passed away on August 10th, 2025. Debra's career at GSFC spanned nearly 40 years. She began working at GSFC as a Procurement Clerk Stenographer in June of 1971, one week after her high school graduation. Starting in 1973, and through the Apollo era, she worked in the Mission Operations Computing Division as a Branch Secretary. In 1983, Debra became a Financial Analyst in the Space Sciences Directorate, and soon became a Financial Manager. She supported that directorate for 26 years, providing resources support to over 50 science missions.

Ronald Michael Litt, 85, died on March 24th, 2026. Ron began his career in 1963 building custom decoding systems for processing satellite data in GSFC's Data Systems Division. From there, he was commissioned into the U.S. Army as an officer and later worked for MITRE Corporation as a consultant to the Joint Chiefs of Staff. His career also included working at General Electric and United Computing Systems, building large-scale time-sharing terminal systems. He eventually developed the world's most powerful supercomputer (at the time): in addition to its commercial applications, it was also used by NASA in solving a problem with space shuttle heat shield tiles.

Nadine Mae (Boothe) Estes, 84, died on March 26th, 2026. Originally from Chincoteague, Nadine worked at the Wallops Flight Facility in Code 113 Human Resources Education Center where many NASA employees went for training. When NASA decided to contract out this support in 1983, Nadine founded the Wallops Executive Support Corporation (WESCO) and served as its President and Chief Executive Officer from the corporation's inception until her retirement.

Robert Orrin Bartlett, 82, died April. 4th, 2026. Bob began working at NASA as an undergraduate cooperative education student and served 32 years at GSFC. During his career at NASA, Bob served as a systems engineer, supporting the Advanced Technology Satellites 4, 5, and 6, Multi-mission Modular Spacecraft, and MAVEN projects, among others. He left NASA in 1981 and spent 23 years in private industry, at SPACECOM, Fairchild Space and Defense Corporation, and AFS Trinity Power Corporation. He returned to NASA in 2004 and worked until his retirement in 2017. Bob served as president of the National Capital Section of the American Institute of Aeronautics and Astronautics (AIAA) and became an AIAA Associate Fellow.

Richard King, 80, died on April 5th, 2026. In his early career, Rich worked as an accountant at the U.S. Treasury and the National Science Foundation. He later received a special appointment as Staff Accountant for the Office of the Vice President under Gerald Ford and Nelson Rockefeller before coming to Goddard, where he worked in the Financial Management Division (Codes 226 and 210). His last position prior to retiring was at the Maryland-National Capital Park and Planning Commission headquarters.

David Martin Scheve, 70, passed away on April 9th, 2026. Dave began his career at AAI Corporation, and came to GSFC in 1990. He spent his next 24 years there, supporting multiple Hubble servicing missions as the HST Observatory Manager, Deputy Project Manager, and Deputy Program Manager. He later led GSFC's Earth Observation projects in Code 420 and ultimately rose to become the Deputy Director of Flight Projects (Code 400). He finished his career as Senior VP of Engineering, Science and Operations at SGT. Dave received presidential honors for his

achievements in leadership and public service. *Note for those interested: a memorial Mass will be held on May 2nd at 11AM at the Church of the Immaculate Conception at 112 Ware Avenue in Towson, MD.*

Winifred R. "Wendy" Otten, 84, passed away on April 18th, 2026. Wendy dedicated her entire professional career to Goddard, where she began as a secretary and advanced to the role of procurement specialist. Among other assignments, she supported the Space Station office at GSFC (Code 400.6), the Earth Observing System (EOS) program, and she issued grants for science research. Wendy was working in the Office of Procurement (Code 210) when she retired in 2002. *Note: a viewing will be held at 10AM on May 5th at Lasting Tributes Funeral Care, 814 Bestgate Road, Annapolis. A funeral service will follow at 11AM at the same location.*