GRAA NEWSLETTER

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

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

UPCOMING LUNCHEONS: We will meet at 11:15 AM on April 14th 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, April 8th.**

April 14		**Dr. Antti Pulkkinen**, Director, NASA Office of JPL Management and Oversight, NASA HQ/JPL **"*Space Weather: The New 'Weather' of a Technological Society*"**
May 12		**Ray Rubilotta,** Associate Center Director NASA Goddard "***Goddard's Transformation for the Future"***
June 9		**Dr. Dong Wu,** Deputy Principal Investigator for PolSIR Mission, NASA Goddard ***"PolSIR: NASA's Submillimeter Polarimetric Mission for Diurnal Ice Cloud Science"***

TREASURER'S REPORT: Jackie Gasch received donations from: Charles Woodyard. 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 Luncheon meeting to elect its Board of Directors. 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. If you are interested to serve on the BOD, please contact Tony Comberiate (abcomberiate@verizon.net) for further

information and encouragement. Submissions of candidates for the GRAA Board of Directors are due by April 15th.

We could also use your volunteer help with other GRAA activities where you don't have to serve on the BOD. Examples include to serve as our lunch coordinator, and assistance with our website and membership. You would work with one of our BOD members. We have a growing and dynamic community.

WELCOME TO NEW MEMBERS:

We are delighted to welcome the following new members:

- Wilfredo Blanco
- Cheryl Jackson
- Rosa Kao
- Carolyn Marshall
- John Ong
- Compton Tucker
- Mark Woodard

RETIREMENT BADGES:

For those members officially retired from Federal service, you can get a retirement badge from the Goddard Badging Office. A recent retiree visiting the Greenbelt Badging Office in Building 17 (Hours of Operation, Mon – Fri, 7 am to 3 pm, 301-286-1347) was able to get her retirement badge printed immediately with no paperwork or appointment needed. The retirement badge will allow you access to the public areas of the campus (auditoriums, cafeterias, recreational areas) where you show your badge to the security guard at the gate. If you are visiting offices of employees, 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.

Tony Yu: Since retiring from NASA Goddard, I have been supporting clients in their development of space-based laser and lidar instrumentation through my company, Y Consulting LLC. I also serve part-time as Chief Staff Engineer IV at Columbus Technologies and Services, where I

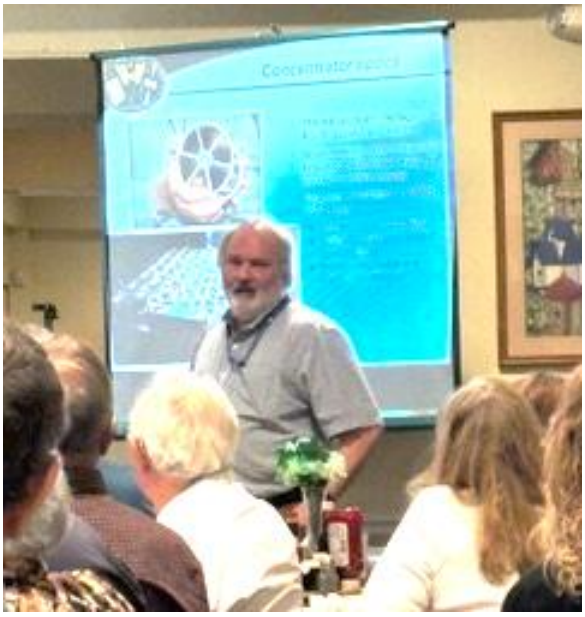
contribute to the LISA laser team. In addition, I provide external advisory support to TOPTICA EAGLEYARD in its space-related activities.

Pam Sullivan has found not working to be conducive to traveling. In the year since her retirement, Pam has visited 20 new countries, including Namibia, her 100th. She has also relocated to N.H. to be near family, bought fractional shares of three racehorses, and is volunteering for GRAA as well as organizations working on campaign finance reform and social justice.

FROM THE GODDARD ARCHIVES: On April 5, 1991, Shuttle Atlantis (STS 37) launched Compton Gamma Ray Observatory (CGRO). It operated in low earth orbit below the Van Allen radiation belts at 450 km for nine years. At that time, it was the heaviest astrophysical observatory at 35,900 lbs. Four telescopes detected X-rays and gamma rays from 20 keV to 60 GeV.

COMMENTS FROM TONY COMBERIATE AND CARL STAHLE

Our March speaker was Dr. Keith Gendreau, Goddard's Principal Investigator for *The Neutron Star Interior Composition Explorer* (NICER) Mission. His presentation, entitled "A NICER View: Astrophysics from the International Space Station", described the mission overview for the instrument, operations, and technology demonstrations as well as the science highlights for the measurement of neutron stars which answered questions about neutron stars first posed in 1939.



The NICER mission, an Explorer Mission of Opportunity, is a X-ray telescope aboard the International Space Station (ISS) designed to study the most extreme environments in the universe, namely neutron stars, black holes, and other high-energy phenomena. Neutron stars are ultra-dense remnants of massive stars with a mass of one and a half times that of the sun, squeezed inside the approximate size of the Washington beltway. NICER probes the interior structure of neutron stars by measuring their X-ray pulse profiles. Its primary instrument is the X-ray Timing Instrument (XTI), which consists of: 56 X-ray concentrator mirrors, which focus X-ray photons from cosmic sources onto matched detector arrays; 56 Focal Plane Modules which each contains a Silicon Drift Detector, a type of high-efficiency X-ray detector that can time-tag incoming photons to an accuracy of <300ns; and Sunshades, which reduce stray light and improve background suppression. NICER uses a unique combination of time resolution (50 – 100X better than predecessors), energy resolution (10X better than the Rossi X-ray Timing Explorer (RXTE)),

angular resolution (10X better than RXTE) and sensitivity (3-20X better than predecessors) to probe the structure, dynamics and energetics of neutron stars, observe all cosmic X-ray sources, and rapidly respond to Gamma Ray Bursts, stellar flares, and Neutron Star and Black Hole outbursts.

Since 2022, NICER has worked with Japan's Monitor of All-sky X-ray Image (MAXI) Mission on the ISS to enable rapid, automated and synchronized X-ray observations of transient astronomical events. MAXI identifies a transient and its location is sent to NICER, which slews to the target in minutes.

NICER, in operation since June 2017, was designed for an 18-month prime mission. As of mid-2025, NICER's science operations have been paused due to a motor fault that limits its ability to reposition the telescope. Engineers are investigating whether the telescope can be moved into a stowed configuration for station operations, but no timeline for resuming science has been set. The current position is safe for the ISS and crew.

NICER is a small mission with a big impact. It addressed the highest national astrophysics research priority, Time Domain and Multi-Mission Astrophysics, (TDAMM), a high priority Decadal Survey initiative, focusing on observing fast changing phenomena. NICER is the largest producer of peer-reviewed papers of any experiment on the ISS. It has proven itself a highly successful and adaptable mission with its legacy in neutron star physics and space navigation already secure. NICER has been responsive to the community and the dynamic sky, from solar system comets to habitability of exoplanets to black holes in distant galaxies, exploring fundamental physics (nuclear, gravitational, condensed matter) and the most extreme conditions in the universe. It has demonstrated deep-space navigation technology using natural celestial beacons (pulsars) and a time standard for the entire Solar system that is responsive to the H.R. 2313 "Celestial Time Standardization Act. Applications of its Modulated X-ray Source (patented, 2019 NASA Government Invention of the Year) include medical (portable, no-moving-parts CT scans), X-ray communication, and material characterization (X-ray fluorescence for Moon/Mars exploration, time-resolved X-ray diffraction).

Goddard wins Earth Science Explorer Missions for EDGE and STRIVE

NASA has selected two Earth System Explorers Missions (EDGE and STRIVE) where Goddard has leadership roles for project management, science, systems engineering, and instrument development. Each mission will be subject to a confirmation review in 2027, which will assess the progress of the missions and the availability of funds. If confirmed, the total estimated cost of each mission, not including launch, will not exceed $355 million with a mission launch date of no earlier than 2030. The EDGE (Earth Dynamics Geodetic Explorer) mission will observe the three-dimensional structure of terrestrial ecosystems and the surface topography of glaciers, ice sheets, and sea ice. The STRIVE (Stratosphere Troposphere Response using Infrared Vertically-resolved light Explorer) mission will provide daily, near-global, high-resolution measurements of

temperature, a variety of Earth's atmospheric elements, and aerosol properties from the upper troposphere to the mesosphere – at a much higher spatial density than any previous mission. We'll have a future GRAA Luncheon talk(s) about these missions. Read more about them here: https://www.nasa.gov/news-release/nasa-selects-two-earth-system-explorers-missions/

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

The **National Capital Section/OPTICA** (formerly OSA) is looking for special judges for the recognition of outstanding optics, lasers and photonics projects showcased by students at local area science fairs. The Science Fairs play a crucial role in fostering the curiosity and passion for science among many young minds. Your expertise and experience would be invaluable in evaluating the student projects and providing constructive feedback. As a volunteer, you will join fellow judges to interview the presenters at the fair and select winners in the 'Outstanding Achievement' and 'Notable Achievement' categories. Fairs are upcoming over February to May at MD, VA, and DC locations. For more information, please contact: james.a.corsetti@nasa.gov.

Goddard 2-mile Fun Run on April 29th at 1200 noon

The Goddard 2-mile Fun Run on Center is on Wednesday, April 29th! It's our 50th Anniversary year! It's a competition for some, a team event for some, a fun run/walk for others. Keep the tradition going and come out and do this race or volunteer. The race starts and finishes in front of the Goddard Child Development Center. The first 300 registrants get a cool commemorative bib number. Grab a slice of pizza afterwards. Email james.e.leake@nasa.gov to volunteer! Carl plans to volunteer as he has done in previous years. If you have a retirement badge, you have access to the campus. If you don't have a retirement badge, we/GRAA will try to get you a visitor's badge: please contact Carl Stahle (carl.m.stahle@gmail.com).

Fun Run registration is at https://runsignup.com/Race/MD/Greenbelt/NASAGoddard2Miler

Opportunity for Virtual Informational Medicare Presentation:

GRAA has been contacted by a representative from the Centers for Medicare & Medicaid Services (CMS), within the Department of Health and Human Services, to inquire if our members would be interested in a virtual presentation on Medicare. 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. If members are

interested, GRAA will plan a virtual session with CMS. If you would like to participate, please send an email (carl.m.stahle@gmail.com) or text (240-814-0450) to Carl Stahle.

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**,** which include synopses of the talks, special community announcements, and obituaries. 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:

John C. "Jack" Brandt, 91, passed away in May 2025. Jack began his career at U.C. Berkeley, and then worked at the Kitt Peak National Observatory, before joining NASA in 1966. He worked first at the Goddard Institute for Space Studies in Manhattan before moving to Greenbelt in 1968, becoming the head of the Solar Physics Branch. Under his leadership, the Branch was reorganized to a Division and he became the Chief of the Laboratory for Astronomy and Solar Physics. Jack had a role in several groundbreaking projects including the Solar Max Mission, the first unmanned satellite to be repaired in space. He was also the Comet Scientist for the International Cometary Explorer, the first spacecraft to intercept a comet. He was the Principal Investigator for one of the original Hubble Space Telescope instruments. Jack departed GSFC in 1988, and worked at the University of Colorado, University of New Mexico, and University of Washington before retiring in 2016.

Harry A. Taylor, Jr. died on December 8, 2025, at the age of 96. Harry was a senior scientist in the Laboratory for Planetary Atmospheres at GSFC. He flew experiments on numerous satellites and sounding rockets launched from Wallops Island, VA and Cape Canaveral, FL. His research spanned decades and reached from Earth to Venus. He studied planetary atmospheres using the Benson's Ion Spectrometer on an unbroken string of successful research missions. In one of his most-cited papers, Harry de-bunked the myth of lightning on Venus.

Jack Balakirsky, of Atlanta GA, died on December 20, 2025. Jack started at GSFC in the early 1960s and continued his career into the 1990s. Early on, he worked in the Systems Programming Section in the Computation Division, supporting users working on some of the most advanced computers of their day. He later became the Operating Systems Maintenance Section Head and then the Software & Operations Support Section Head in the Flight Dynamics Division. He also served as a mentor to students apprenticing with NASA.

Charles Edward "Chuck" Manion, 92, of Salisbury MD, passed away on March 10, 2026. Chuck served in the U.S. Army airborne corps during the Korean conflict, and afterwards studied physics on the G.I. bill. He began his NASA career at Langley, and later moved to Wallops, where he was a sounding rocket project manager in the Code 840 Range & Mission Management Office from the mid 1960s until his retirement over 30 years later. Chuck took his payloads around the world to launch, and was even part of a team that built a sounding rocket launch range in Peru. At one point in the 70's, Chuck was the NASA liaison on a Soviet ship stationed off Wallops.

Michael Anthony Richter III, 75, of Stevensville, Maryland, passed away on March 15, 2026. Mike began his career in the U.S. Navy and after four years of service became a contractor at GSFC, working in Voice Control supporting most of the Mercury, Gemini, and Apollo programs. He eventually became a federal employee in the NASA Communication (NASCOM) Division and later in the Communications Services Branch (Code 731). He served as a Communications Director supporting the Space Shuttle program from before the first Shuttle launch to the day the last one was retired. Mike then worked as a Communications Mission Planner supporting the Space Science Directorate. He also served as the GSFC Postmaster, handling email issues for Goddard employees. Mike retired in 2013.

Edward Campion, 67, passed away on March 19, 2026. Ed spent his career in NASA public affairs, communicating with the public and news media about the NASA mission. In 1985, Ed was hired into the Public Affairs Office at HQ, where his work focused on the Space Shuttle. He was particularly proud of being the lead for the “Teacher in Space” program, and he described the Challenger launch as the best, and worst, day of his career. He later became the News Chief at the Johnson Space Center, a job which sometimes included being the voice of NASA TV. In 2001, Ed became the News Chief within GSFC’s Office of Public Affairs. Here he worked on many Goddard projects including the Hubble Servicing missions, GPM, and JWST. Ed retired in 2018.

Ronald Ogden "Ron" Britner, Jr., 95, of Everett PA, passed away on March 23, 2026. Ron served in the U.S. Air Force during the Korean War, and then worked at GSFC for 33 years until his retirement in 1987. Ron held multiple management roles including being the Deputy Project Manager/Technical for the Earth Radiation Budget Experiment, a pioneering mission that studied the impact of clouds, aerosols, and greenhouse gases on climate, and how human activities affect the Earth’s radiation balance. Ron was also the GSFC Work Package Manager for the International Space Station, where he was instrumental in the early design studies.