

GRAA NEWSLETTER

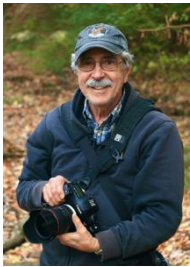
P.O. Box 1184, Greenbelt, MD 20768-1184

<https://GoddardRetirees.org>

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

October 2026: 42nd Year of Publication

UPCOMING LUNCHEONS: We will meet at 11:15 AM on October 13th 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, October 7th**.

October 13		Ben Reed Chief Growth Officer, Quantum Space <i>"From Goddard to Quantum Space"</i>
November 10		Dr. Luke Oman STRIVE Project Scientist, NASA Goddard <i>"STRIVE Earth System Explorer Mission"</i>
December	<i>No luncheon. Enjoy the holidays!</i>	
January 12		Steve Talabac GRAA Member <i>"Nature Photography: Composition and Techniques"</i>

WELCOME TO NEW MEMBERS:

We are delighted to welcome the following new members:

- Maureen Armbruster
- Joanne Baker
- Lahouari Bounoua

- Roger Clason
- Colleen Hartman
- Christine Hinkle
- Dan Solomon
- Gail Terrier

TREASURER'S REPORT: Jackie Gasch received donations from: Pam Sullivan, Tom Wrubelski, and Joe Bredekamp, and Belle Davis in memory of Gayle Negri. 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 STAHLE

Our September speaker was **Dr. Ira Thorpe**, Goddard's Project Scientist for the Laser Interferometer Space Antenna (LISA) mission. His presentation, entitled ***"Listening to the Dark Universe with LISA,"*** described gravity waves and the motivation for studying them, how the LISA mission and its technology work, and gave an update on the mission's status.

LISA, a European mission with U.S. participation, is designed to detect and measure gravitational waves propagating at light speed from astronomical sources. LISA will be the first dedicated, space-based, gravitational-wave observatory and will measure gravitational waves directly using laser interferometry. The LISA concept features three spacecraft arranged in an equilateral triangle, with each side 2.5 million kilometers long, flying in a heliocentric orbit 65 million kilometers from Earth. The relative acceleration between the satellites is precisely monitored to detect passing gravitational waves, which are distortions of spacetime. The mission, which was selected in 2017 and formally adopted in 2024, is scheduled to launch in 2035. LISA will detect gravitational waves from sources such as merging supermassive black holes, massive black holes orbited by small compact objects, binaries of compact stars and compact binary systems, and possibly sources from the very early universe, such as the cosmological phase transition, which occurred shortly after the Big Bang.



Goddard's contribution includes six ultra-stable telescopes (two per spacecraft), each with a 30 centimeter diameter primary mirror, three Charge Management Devices (one per spacecraft), which use ultraviolet light to control the electric charge on the mission's free falling test masses, and four lasers per spacecraft. The European Space Agency (ESA) contribution includes the spacecraft bus and other elements from 12 ESA member countries.

Dr. Thorpe explained that black hole mergers are the most energetic explosions in the universe - much larger than supernova and even gamma ray bursts. They were first discovered in 2015 by ground-based observatories and hundreds have been detected since. Prior to this measurement, all data about the universe had come in the form of light and other forms of electromagnetic

radiation. The ground-based observatories are called Laser Interferometer Gravitational-Wave Observatory (LIGO) and there are two sites in the U.S., located in Louisiana and Washington state. They detect gravitational waves by splitting a single laser beam down two 4-kilometer perpendicular tunnels, bouncing it off heavy mirrors, and measuring microscopic changes in distance when space-time ripples pass through Earth. LISA will greatly improve upon on LIGO's accuracy by operating its three spacecraft 2.5 million kilometers apart, creating a much longer and much more sensitive measurement.

Dr. Thorpe expects LISA to observe many white dwarf star mergers, which will help our understanding the Milky Way Galaxy. He also hopes to observe gravitational signals from the very early universe. While the universe was opaque to light from the Big Bang until ~400,000 years later, it did allow gravitational waves to propagate. Thus, LISA may detect a background of gravitational waves left over from the very first moments of the cosmos.

Roman Space Telescope

The Roman Space Telescope team has successfully activated its Wide Field Instrument and Coronagraph Instrument. These steps are part of a months-long series of calibrations and tests, as Roman continues its million-mile journey to its destination at the second Lagrange point, L2. You can follow real-time updates on NASA's official Roman Space Telescope [Blog](#).

GRAA By-Laws Change

In order to ensure that the GRAA Constitution and GRAA By-Laws are kept current and accurate, and with GRAA being a 501 (c) (3) organization, we need to amend the By-Laws Article VII Entitled "Dissolution", which currently states that if GRAA is dissolved all funds would be distributed to GEWA to benefit its membership. However, in accordance with IRS regulations, we need to amend this Article to show that any remaining assets must be transferred/distributed to another IRS tax exempt nonprofit organization or charitable cause. The amended GRAA By-Law Article VII – Dissolution will state: "In the event of dissolution of GRAA a 501 (c) (3) organization, all assets remaining after payment of debts must be distributed to another 501 (c) (3) IRS recognized tax exempt nonprofit organization." The GRAA members attending the October monthly meeting will vote on the proposed amendment.

WHAT'S UP WITH OUR MEMBERS:

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



Jan Kalshoven shares: Some members think that a month between get togethers at the Legion is too long. So midway between GRAA meetings, on Tuesdays at the same time, we get together at BJ's restaurant in Bowie for lunch. The picture is from the September 22nd gathering.

FROM THE GODDARD

ARCHIVES: On October 9, 2000, a Pegasus XL launched the HETE-2 (High Energy Transient Explorer) satellite from the Kwajalein Atoll in the Pacific Ocean. HETE-2 was designed to detect and localize gamma ray bursts (GRBs), and transmit the GRB coordinates to ground observatories in near real time for follow-up studies. It was a collaboration between the USA, Japan, France and Italy, and provided data until March 2008.

ACTIVITIES FOR MEMBERS:

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!

Medicare Open Enrollment Webinar October 5: The Goddard Retirees and Alumni Association and the Centers for Medicare & Medicaid Services (CMS) will host a free educational webinar on Monday, October 5 at 2:00 PM EDT about Medicare Open Enrollment and Medicare coverage options. The session will explain the choices available during Medicare Open Enrollment and the factors people may wish to consider when comparing coverage options. Information will be presented for general educational purposes and will not include individual plan recommendations. Contact Carl Stahle (carl.m.stahle@gmail.com) if you plan to attend. This is a good follow-up to the Medicare Webinar we had this past May.

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).

Visit to Maryland Museum of Natural Sciences and Lunch on December 8: The Maryland Museum of Natural Sciences has invited GRAA to a special visit and guided tour of their brand-new permanent exhibit: *The Making of Maryland: 1 Billion Years and Counting*. This exhibit explores the sweeping geologic story of Maryland - from ancient oceans to mountain-building, from bolide impacts to dinosaurs - through rocks, fossils, mineral, and immersive interpretation. Highlights include:

- Apollo-era moon rocks display with new educational context
- The Chesapeake Bay bolide impact, told through regional evidence and core samples
- Dinosaur tracks discovered by Ray and Sheila Stanford, a husband-and-wife duo with Goddard connections whose discoveries shaped our understanding of Maryland's Cretaceous world
- Maryland's changing landscapes across a billion years of geologic time

The 45 minute guided tour starts at 11:00AM on December 8 at the museum with additional time (~45 min) allocated to browse through the museum. We will plan lunch at a local restaurant. The museum's address and phone number are: 6908 Belair Road, Overlea, Maryland 21206; 443-955-4761. Please contact Carl Stahle (carl.m.stahle@gmail.com) if you plan to attend.

Looking for a Machinist to Teach Manual and CNC Machining Classes: The Community College of Baltimore County, Catonsville Campus is looking for a machinist who is interested to teach manual and CNC machining classes. If interested, please contact Greg Behrmann (gbehrmann@cCBCmd.edu) who is an engineering instructor at the community college. Greg thought a retired Goddard machinist might be interested in teaching and sharing their skills.

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:

Edward "Dick" R. Gladding, Sr., 99, passed on August 20, 2026. Dick served in the U.S. Navy during WWII and held several positions before he joined NASA at Wallops Island in 1960. He worked in the instrument repair and calibration and frequency monitoring laboratory (Calibration Lab) in the Safety & Quality Assurance Engineering Branch (Code 1024) before retiring in 1982.

Terry Douglas Sommers, Sr., 84, passed away on August 26, 2026. Terry began his career at NASA Wallops in the early 1960s. He worked in software development, first in the Information Processing & Analysis Branch (Code 1023), and moving over time to the Real Time Software Engineering Branch (Code 584). There, he supported multiple efforts including aircraft flight test. Terry retired from federal service around 2001, but continued supporting the Space Network Project as a contractor for many years.

Curtiss Barrett, 88, passed on September 3, 2026. Curt began at Goddard in 1962 as a mission analyst and propulsion specialist. In 1968 he became a systems engineer and later moved into software development and management. Over the course of his career, he was the Head of the Ground Software Support Section (Code 734), and Assistant Head of the Systems Implementation Branch (Code 823) within the Network Control Center Division. Curt retired in the mid-1980s.

Blake Lorenz, 82, passed on September 5, 2026. Blake served with the U.S. Army Map Service before coming to Goddard in 1981 for the start of his 40+ year NASA career. Blake was an electronics engineer and one of the nation's leading experts in space communications, weighing in on mission design and launch readiness for missions that carried both astronauts and spacecraft. His sharpest catch may have been on the first Space Shuttle flight in 1981, when his analysis corrected an error in the Shuttle program's antenna calculations.

Frank Carr, 88, passed away on September 12, 2026. Frank started at Goddard in 1960 and he spent nearly 50 years working on the space program at Goddard, NASA Headquarters, and JPL. He served in various positions on space projects including Explorers, the Hubble Space Telescope, and numerous planetary missions. Frank retired from NASA HQ where he served as the Deputy Director of Planetary Missions. [You can read about Frank's post-retirement experience as a "Flying Octogenarian" in the November 2025 GRAA [newsletter](#).]

Jack Koslosky, 89, passed on September 17, 2026. Jack was a commissioned officer in the U.S. Army Signal Corps before coming to GSFC in the 1960s. He began in the Manned Flight Engineering Division (Code 810) and later worked in the Mission Operations Division, serving as Section Head and then Assistant Branch Head for the Spacecraft Control Systems Branch (Code 511). Jack's career spanned more than 40 years with the U.S. Space Program.