



# GRAA NEWSLETTER

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

May 2024 <https://goddardretirees.org> 40th Year of Publication

**UPCOMING LUNCHEONS:** We meet at 11:15 AM on the 2<sup>nd</sup> Tuesday of each month at the American Legion Post #136 at 6900 Greenbelt Road. **Reservations are required;** please contact [graalunch@gmail.com](mailto:graalunch@gmail.com) (preferred) or call (410)-709-8889 **before Thursday, May 9.**

May 14		<b>Keith Noll</b> , Astronomer in Goddard’s Planetary Systems Laboratory; “Lucy; Mission to the Jupiter Trojan Asteroids”.
June 11		<b>Tom Statler</b> . Program Scientist; NASA’s Planetary Defense Coordination Office. (Lucy, MMX, OSIRIS-APEX Mission)

## COMMENTS FROM TONY COMBERIATE and ARLIN KRUEGER

Our April speaker was **Dr. William T. “Tom” Bridgman**, Global Science & Technology, Inc. in NASA’s Scientific Visualization Studio (SVS) at Goddard. His talk, “[Visualizing the Heliosphere](#)” described SVS’s General Animation and Visualization Resources, its NASA data sources, and its audiences. SVS uses high-end tools to process Earth Science, Heliophysics, Planetary Science, and Astrophysics data in creating visualizations. Animations are generated to present conceptual ideas comprehensively. Multiple data sets with different time samplings can be interpolated and adjusted to render high-precision views. SVS products can be seen on [NASA Hyperwalls](#), the Earth Information Center at NASA Headquarters, and a new facility at Kennedy Space Center.

Tom’s new projects include an Interactive Eclipse Photo Adventure Game (see: <https://spaceplace.nasa.gov/snap-it-eclipse-game/en/>) and an Interactive Eclipse Map which was used extensively by the whole community for watching the recent total solar eclipse. This map allowed users to get specific timing and duration of totality, by just inputting a zip code. Challenges include keeping ahead of what scientists can do on their desktops with the latest commercial physics-based rendering software. Tom concluded his presentation with fascinating videos including: Black Holes and their Companions; A transit of our Milky Way Galaxy starting from the Earth and ending with a top-down view; The flow of moisture in recent atmospheric rivers that hit the US West Coast; the orbits of the latest fleet of Earth-observing satellites; CO<sub>2</sub> sources in the Northern Hemisphere; a visualization of emissions from the Sun

spiraling out to the edge of the solar system, that was used to predict the environment for New Horizons at Pluto; a tool to visualize how solar features change when viewed through the SDO UV imager wavelengths; and the latest Heliophysics fleet that observe the Sun and the Earth's magnetic field, viewed from less than 1 AU to beyond the edge of the solar system.

Tom ended his presentation with a clever depiction of the Apollo 8 astronauts' video of the moon's surface in 1968 (substituting LRO high-resolution data) when they accidentally saw the Earth rise above the horizon from the side window. A mad scramble ensued to follow the Earth's rise through the Apollo windows.

You can see all of SVS' visualizations on the public website: <https://svs.gsfc.nasa.gov/>.

**2024 GRAA Board Election:** Two members, Ron Mueller and Arlin Krueger, are retiring from the Board. As of April 15, we received one nomination of a willing GRAA member and one GRAA member indicated an interest in running for the GRAA Board of Directors. With these two nominations and five members of the current Board willing to serve for another two-year term this resulted in seven candidates for the seven Board positions. The current Board determined that there was no need for an official vote and that these seven candidates would serve the next two-year term. The seven candidates are Tony Comberiate, Jackie Gasch, Barbara Hamilton, Jan Kalshoven, Jim Cameron, Ron Browning, and Carl Stahle. A Board meeting will be held to select the offices of President, Vice President, Secretary, and Treasurer.

**DIRECTORIES AND NEWSLETTERS:** Send your email address to [goddardretirees@gmail.com](mailto: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 mailed hardcopies to members. Donations to GRAA support these mailings, P. O. Box 1184, Greenbelt, MD 20768-1184.

**TREASURER'S REPORT:** Treasurer Jackie Gasch received donations from Karen Halterman, James Fischer, Ellen Herring, Glenn Harris, Leroy Scriba, and Sharon Rubin donated in memory of Stan Rubin.

**FROM THE GODDARD ARCHIVES:**

Fifty years ago on May 30, 1974, Titan-II launched ATS-F, Applications Technology Satellite. Its technology was a precursor to TDRS.

**REMEMBERING OUR FORMER COLLEAGUES:**

**Mirl "Ray" Bendt**, 84, passed peacefully on April 11, 2024, in the company of his family. Born in Salt Lake City, Utah on February 9, 1940, Ray worked as a machinist at the Space Sciences Shop

at the University of Maryland while also earning a BS degree. He retired in 1993 and then continued working full-time for 28 years at Goddard Space Flight Center.

**R. Denis Endres**, 81, passed away on March 21, 2024 at home. His career at GSFC began in 1965 in the Sciences Directorate in atmospheric research. He also worked across Flight Projects on successfully launched flight hardware, Office of Flight Assurance and Engineering Directorates. He specifically and fondly recalled his work on Landsats 4 and 5 and the Cosmic Background Explorer (COBE). Denis was an ex-race car driver and enjoyed speed boating on the Chesapeake Bay and the Tar River in NC. He is survived by his wife, Mary Endres, also retired from GSFC and a GRAA member, provided the information on her husband's career at GSFC.

**Victor Manuel Figueroa**, age 102, of Clearwater, Florida passed away on February 12, 2024. Victor was born on December 12, 1921. He was the Station Director of the NASCOM Switching Center, which was part of the Madrid Deep Space Communications Complex (MDSCC), in Robledo de Chavela, Spain, near Madrid, from 1965 to about 1986.

**Emil Rowland Kirwan**, 93, of Kansas City, Kansas, died on April 4, 2024. Emil was born in Lexington, Nebraska, and after high school joined the Coast Guard where he served as a 2nd class petty officer performing search and rescue operations during the Korean War. After the war, he used the G.I. Bill to attend the University of Denver, graduating with a degree in Electrical Engineering. He subsequently worked for RCA and Westinghouse before joining NASA in 1963. He supported the Gemini, Apollo, Skylab, and Space Shuttle missions, as well as many other missions during his 39-year career at GSFC, where he served as the Operations Branch head for NASA Communications (NASCOM).

**[Ann Chance Merwarth](#)**, 82, of Fort Myers, passed away from Alzheimer's disease on April 17, 2024. She was born in Uniontown, PA and attended Emory University in Atlanta, GA where she earned a BS in mathematics. Ann began her career at GSFC in 1963, where she worked for 35 years. She helped program the operating system for the first NASA computer in space. From 1987 until 1990, she was the Branch Chief for the Mission Operations and Information Systems Branch, Solar System Exploration Division, Office of Space Science, NASA Headquarters. From 1990 until 1998, she was Operations and Ground System Project Manager for HST. During her career at GSFC, she received many awards, including a presidential award for management of space programs. To help herself and other women who wanted careers, but also wanted to be close to their children, Ann found a building, hired teachers, and opened a daycare center at GSFC, the first of its kind at a federal agency. After leaving GSFC in 1998, she worked as an aerospace consultant to NASA and its industry partners.

**Ralph Douglas Ryder**, 84, of Salem Missouri, died on April 3, 2024. Ralph was born in Culpepper, Virginia in 1939. He enlisted in the U.S. Marine Corps in 1961, serving during the Vietnam War. On June 24, 1968, he joined NASA; the same day his future wife, Nancy Lynn Lay, whom he married in 2006, also joined NASA. Ralph worked in the Mechanical Maintenance Section of the Facilities Management Division (FMD). After Ralph and Nancy retired from GSFC, they moved to Salem in 2008.

