

GRAA NEWSLETTER

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

October 2025 <https://GoddardRetirees.org> 41st Year of Publication

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

October 14	 <p>Dr. Richard Kelley, US PI, X-ray Imaging and Spectroscopy Mission (XRISM), NASA Goddard <i>“How the Goddard Space Flight Center built the coldest spectrometer ever to observe the hottest objects in the Universe”</i></p>
November 4	 <p>Dr. Melissa Trainer, Deputy PI/Dragonfly mission NASA Goddard <i>“Dragonfly: Flights of Exploration on an Exotic Ocean World”</i></p>

COMMENTS FROM TONY COMBERIATE AND CARL STAHLE

Our September speaker was **Jeff Volosin**, Director of the Astronautical and Space Engineering Undergraduate Program, Capitol Technology University, and GRAA Member. His presentation, **“Capturing the History of NASA’s Explorer Program”**, summarized the results of his extensive study of the Explorer Program’s history. Jeff’s association with the Explorer Program began in the 1980s and continued throughout his 40-year career, but his fascination with Explorers led him to begin an exhaustive research effort into the origin and history of the program. He has interviewed over 60 people involved in various aspects of Explorer spacecraft and researched over 1,000 documents and archives. His study provided a comprehensive history of the Longest Continuous Program of Space Science and Exploration, as well as a key component of the history of Goddard and NASA itself. The history began in the 1930s with the Guggenheim Fund for the Promotion of Aeronautics and evolved to the 1950s when the US International Geophysical Year (IGY) committee proposed the “technical feasibility of a long-playing rocket” and both the US and USSR started planning for orbital rocket launches during the IGY. It was during the IGY (June 1957-December 1958) that the USSR launched Sputnik, and the US launched its first satellite, Explorer 1. Explorer 1 was built by JPL and Launched on an Army Juno 1 rocket from Cape Canaveral. Its Lead Scientist was James Van Allen from the State University of Iowa. During the IGY, the US launched 23 satellites with 5 successes, and the USSR launched 7 satellites with 3 successes. During 1958, ARPA was assigned science-related satellite efforts but decided not to absorb the Army Ballistic Missile Agency (Huntsville, AL) or

the JPL teams responsible for the Explorer launches. Later that year, the President's Science Advisory Committee completed their study on the Exploration of Outer Space, which led to the signing of the National Aeronautics and Space Act of 1958 and the creation of NASA. An executive order requested that ARPA transfer all scientific satellite activities to NASA. The civilian space priorities were human spaceflight first, then applications satellites (communication, navigation and weather), Deep space, technology, infrastructure, and scientific research (explorer missions). By the end of the 1960's, NASA had launched 158 satellites with 118 successes, including 47 Explorer missions, with 37 successes. Jeff has compiled a complete history of all Explorer missions, how their selection process has evolved, their launch vehicles, and lessons learned results.

Many of our retirees attending the presentation had direct experience with Explorers dating back from the beginning of NASA and appreciated Jeff's research into how those experiences were part of an amazing history and evolution of the 105 Explorer missions that spanned the entire lifetime of Goddard (and NASA) and continue to be the backbone of its scientific research.

Although almost complete, Jeff's research continues, and he closed by asking GRAA members to share their experiences (whatever role you had directly or indirectly with Explorer missions) by letting him interview you. The interviews can be in person or virtual. He even has some questions to get the conversation going. He is looking to complete interviews this year. He can be contacted at: jfvolosin@captechu.edu



NASA's Dragonfly Mission Soaring Through Key Development, Test Activities

NASA's Dragonfly mission has cleared several key design, development and testing milestones and remains on track toward launch in July 2028. Dragonfly, a car-sized, nuclear-powered rotorcraft being designed and built for NASA at the Johns Hopkins Applied Physics Laboratory

(APL) in Laurel, Maryland, will explore Saturn's moon Titan. Following launch and a six-year journey to Titan, the Dragonfly rotorcraft will spend over three years investigating multiple landing sites across the moon's diverse surface. Flying a comprehensive science package, Dragonfly seeks to understand Titan habitability and the building blocks of life as we know it. Hardware is being built and software developed, tests are being completed and analyses verified as the team progresses through its development schedule.

Recent tests have included aerodynamic analyses of Dragonfly's rotors and durability trials of the foam coating that will insulate the rotorcraft from Titan's frigid temperatures. The science payload is also coming together, with instrument components delivered and set up for additional testing. Flight systems are also being evaluated and the flight radio has been delivered and tested.

Mass Spectrometer on the Move

Scientists and engineers at NASA's Goddard Space Flight Center in Greenbelt, Maryland, have completed a critical part of the Dragonfly Mass Spectrometer (DraMS), which will analyze chemical components and processes on Titan, including potentially biologically relevant compounds. The Ion Trap Mass Spectrometer, effectively the "heart" of the DraMS package, has cleared its acceptance review and is being prepared for space-environment tests and integration with other DraMS components.



Members of the Ion Trap Mass Spectrometer team inspect their device, part of the Dragonfly Mass Spectrometer (DraMS) instrument package, at NASA's Goddard Space Flight Center.

Dr. Melissa Trainer, Deputy PI for the Dragonfly mission, will be at our GRAA Luncheon speaker in November.

[NASA's Dragonfly Soaring Through Key Development, Test Activities](#)

Advocacy

GRAA wants to be a strong advocate for Goddard and the NASA community. The proposed Fiscal Year 2026 budget from the Administration cuts the NASA's Science Mission Directorate's (SMD) budget by nearly 50% and NASA's overall budget by 25%. The Senate and House of Representatives committee version of the budget have restored most of the NASA Science Budget. The Administration's FY 26 budget request and workforce reduction policies through the Deferred Resignation Program (DRP) have reduced the Goddard workforce by 32% or ~1000 civil servants since February.

Members are encouraged to contact (meet/call/email) their elected representatives in the House to urge them to restore the NASA Science budget to its FY25 level. You can visit the Planetary Society link for guidance: <https://www.planetary.org/save-nasa-science>.

The Planetary Society and nearly a dozen partner organizations have announced a congressional visits event in Washington, D.C. on October 5th and 6th. The goal is to support the congressional budgets that reject cuts to NASA and to prevent premature mission terminations. <https://www.planetary.org/advocacy/day-of-action>

WELCOME TO NEW MEMBERS:

We are delighted to welcome the following new members:

Troy Ames
Kris Brown
Douglas Bruner
Eric Cardiff
Allen Crane
Brian Dennis
Debora Fairbrother
Wai Fong
Robert Gabrys
Marjorie Haskall
Deanna Herschell
Paul Hertz
Bob Jenkins
Paul Hertz
Lisa Kelly
Kim Mehalick
Malcolm Milam
Veronica Okai

Ed Packard
Christa Peters-Lidard
Loren Phillips
Natasha Pinol
Betsy Pugel
Frank Ramos
Adán Rodríguez-Arroyo
Robert Stanley
Gilberto Vincente
Chip Wellington
Ken Yargus

ACTIVITIES FOR MEMBERS:

100th Running of the Goddard 2-mile Fun Run on October 8th

Come out to run, walk, or volunteer at this Milestone Event and celebration for the Goddard community. The Goddard 2-mile Fun Run was started in 1976 and has been run in the Spring and Fall just about every year since. Multiple volunteers will be needed so please consider signing up.

You can register as a participant or as a volunteer at:

<https://runsignup.com/Race/MD/Greenbelt/NASAGoddard2Miler>

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 to let him know you if you plan to run/walk or volunteer.

A volunteering opportunity: 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.

Pawan Bhartia volunteers as a docent at Smithsonian National Museum of Asian Art, aka Freer/Sackler Galleries. It is located within a short walking distance from Smithsonian metro station. He invites GRAA members to the museum for a special tour of the exhibits. He can design the tour based on your interests. Visit Asia.si.edu for an overview of the galleries. Weekends are best for him. Other days after 2 pm are also okay. Feel welcome to email him at paunb1@icloud.com to schedule a visit.

Jan Kalshoven, one of GRAA's board members, became the president of what is now called the [Goddard Tennis and Pickleball Club \(GTPC\)](#) this past year. There are no fees to play at the Goddard Tennis complex which now has lines and a rollable net for pickleball (Access to the

center is by showing your Goddard retiree badge as you drive in). Courts are open to all, but if you want to join GTPC and get on WhatsApp and TeamReach to find other Goddard players, send an email to Kalshoven@gmail.com.

GRAA is on Social Media

GRAA has extended its reach to social media. We are now on LinkedIn which is the world's largest professional network. Members can visit [linkedin.com](https://www.linkedin.com) and search for NASA Goddard Retirees and Alumni Association. You are welcome to be a follower of this group.

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) to Tony Comberiate (abcomberiate@verizon.net) and Carl Stahle (carl.m.stahle@gmail.com) who reserve the right to edit for content and length.

John Bolton provided the following submission:

The intention of this submission, due to the proposed drastic cuts in NASA's science operations, is to find out if GRAA members and their friends or associates (including those still at Goddard) might be interested in working with me to advance, independent of NASA, an area in which NASA has taken a serious hit, the Earth Sciences. There are possibilities that might be pursued within existing government programs that are not susceptible to budget cuts, and many others that do not directly involve Government funding.

At Goddard, I was an instrument systems engineer in the Engineering Directorate. Among other assignments, I played a major role in the initial phases of the EOS Project, working with Chris Scolese. Since retirement I have continued working in Earth remote sensing technology and applications (occasionally as a consultant), with an emphasis on passive optical remote sensing (Landsat, MODIS, etc. for example).

John may be contacted at: jfboltonnasa@gmail.com

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.

TREASURER'S REPORT: Jackie Gasch received donations from: Bill Townsend, JoAnn Clark, Betty Phelps, Glenn Harris, Bruce Thoman, John Burris, Jr., Joyce Cephas in memory of Arnold Cephas and Doris Anne Martin in memory of Jon Arneson.

FROM THE GODDARD ARCHIVES: October 10, 2019, ICON, Ionospheric Connection Explorer launched on LEOstar-2 Spacecraft as an attached payload. It carried 4 instruments and operated 3 years. It found the Tonga Volcano eruption reached space.

REMEMBERING OUR FORMER COLLEAGUES:

Frederick (Fred) Richard Brooks, 94, died on September 6, 2025, after an illness. Fred was born on May 6, 1931, and worked at the B&O Railroad in Baltimore before enlisting in the Seabees (U.S. Navy Construction Battalion). Upon returning home from service, he worked at Westinghouse and eventually with Goddard where he worked for 28 years, contributing to numerous spacecraft projects and supporting several launches. He also enjoyed opportunities to travel abroad for launches, visiting places like London, Germany, and Africa. After retiring from Goddard, Fred worked for McDonnell Douglas, until his final retirement in 2011, at the age of 80.

Anthony "Tony" Francis Dulieu Durham, 92, died on September 17, 2025, in Harrisonburg, Virginia. Tony was born August 17, 1932, in Ealing, England. Tony is survived by his wife of seventy years. He attended the prestigious Latymer Upper School in London, England, on an academic scholarship and graduated from Imperial College London with an electrical engineering degree. Tony had a long career at NASA, and later at NOAA. At NASA, he received several honors and awards. While there, he was responsible for overseeing the construction of the radio telescope in Santiago, Chile. Tony spent time in Puerto Rico working on the Arecibo Observatory.