

National Space Club & Foundation 515 2<sup>ND</sup> Street, NE Washington, DC 20002 (P) 202-547-0060 www.spaceclub.org

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# NATIONAL SPACE CLUB & FOUNDATION ANNOUNCES 2024 AWARD RECIPIENTS

Washington, DC - The National Space Club & Foundation is pleased to announce its Annual Award Recipients. The Awardees are selected by panels of experts from across the aerospace and defense industry, government, and academia, and are a testament to the inspiring work of individuals across the United States. The Awards will be presented at the 67th Annual Robert H. Goddard Memorial Dinner taking place at the Washington Hilton Hotel on Friday, March 22, 2024.

# 2024 Award Recipients

**OSIRIS-REx Team** from NASA's Goddard Space Flight Center, Lockheed Martin, University of Arizona and KinetX will receive the Club's preeminent award, the **Dr. Robert H. Goddard Memorial Trophy** for their tremendous work on the first U.S. mission to bring back an asteroid sample.

Following its launch on September 8, 2016, aboard United Launch Alliance's Atlas V 411 from Cape Canaveral, NASA's OSIRIS-REx mission made history when it became the first U.S. spacecraft to touch an asteroid and capture a sample on October 20, 2020, and again when it successfully delivered that sample to Earth on September 24, 2023.

The sample, the largest asteroid sample ever delivered to Earth, is from the ancient, carbon-rich asteroid Bennu. It will give research groups worldwide a glimpse into the earliest days of our solar system, offering insights into planet formation and the origin of organics that led to life on Earth. Data collected by the spacecraft combined with future analysis of the Bennu sample will also aid our understanding of asteroids that can impact Earth.

Following its successful sample return, the OSIRIS-REx spacecraft was renamed OSIRIS-APEX and will now enter an extended mission to visit and study the near-Earth asteroid Apophis in 2029.

OSIRIS-REx's success was made possible by the unique contributions of over 1,000 individuals from government and mission partners like the science leadership at the University of Arizona, the project team at NASA's Goddard Space Flight Center, the curation team at NASA's Johnson Space Center, spacecraft design, operations and recovery by Lockheed Martin, guidance and navigation at KinetX, the launch provider at United Launch Alliance, steady policy and funding from Congress and many other supporting organizations that made this mission the first-of-its-kind for the nation.

OSIRIS-REx is the third mission in NASA's New Frontiers Program managed by NASA's Marshall Space Flight Center.

Key members of the OSIRIS-REx Team include:

Dr. Dante Lauretta, Principal Investigator, OSIRIS-REx Team, University of Arizona; Heather Enos, Deputy Principal Investigator, Lunar and Planetary Laboratory, The University of Arizona; Rich Burns, Project Manager, NASA; Dr. Michael C. Moreau, Deputy Project Manager, NASA/Goddard Space Flight Center; Sandra Freund, Spacecraft Mission Operations Manager, Lockheed Martin Space; Dr. Michael Nolan, Deputy Principal Investigator, OSIRIS-APEX, The University of Arizona; Olivia Billett, Spacecraft Science Phase Lead, Lockheed Martin Space; Jodi Zareski, Systems Engineer Lead, Lockheed Martin Space; Dr. Edward (Beau) Bierhaus, TAGSAM Lead and Science co-investigator for OSIRIS-REx, Lockheed Martin Space and Peter Antreasian, OREx Navigation Team Chief, KinetX, Inc;

<u>Abigail Frank</u>, a sophomore at Purdue University majoring in Aeronautical and Astronautical Engineering, is the recipient of the **Goddard Memorial Dinner's Keynote Scholarship**. Ms. Frank leads the Purdue Space Program's High Altitude Team overseeing the development of a reusable solid rocket for a high-altitude experiment studying plant reactions to g-forces. As Lead Propulsion Engineer, she managed test stand development and studied grain geometry's impact on in-flight performance. Abigail is actively involved in the Honors College, mentors her peers, and is part of *Leading Women Toward Space Careers*.

Through a program in Kenya last summer, funded by the National Science Foundation, Abigail researched educational policy, integrating young mothers into the Tumaini Innovation Center. Her work earned awards from the Purdue Undergraduate Research Conference and the John Martinson Honors College.

As a NASA Western Aerospace Scholar in high school, Abigail explored the psychological consequences of long-term space travel. She led the Sustainability Club, emphasizing sustainability in human spaceflight, and was valedictorian, maintaining connections with teachers and advising her peers on various topics.

Abigail's athletic journey includes being a U.S. Junior Olympic Rhythmic Gymnastics Team member and later Head Coach of a large gymnastics team, recognized as regional Coach of the Year. She is a 3-time equestrian National Champion and Oregon Horsewoman of the Year.

Having volunteered globally, from coral reef restoration in Thailand to building solar power arrays in Kenya, Abigail is an avid hiker and rock climber. Her extensive travels include exploring national parks on five continents. Abigail aspires to earn a Ph.D. to contribute to the frontiers of space exploration, showcasing a diverse and dedicated individual poised to make a lasting impact.

<u>Artemis I Team</u> is the recipient of the Nelson P. Jackson Aerospace Award for its outstanding contribution to the mission, aircraft, or space field. In the early morning of November 16, 2022, the Artemis I Team launched the Orion Deep Space Spacecraft on a journey to the Moon marking a new era of Artemis exploration. The Space Launch System (SLS), powered by four high performance RS-25 engines and two of the largest solid rocket boosters ever flown, was stacked on the mobile launch platform and thoroughly tested at the Kennedy Space Center prior to launch. The SLS delivered the Orion Spacecraft on a near perfect trajectory providing Orion greater fuel reserves to start the groundbreaking 25.5-day, 1.4-million-mile journey around the Moon and back.

Before splashing down in the Pacific Ocean on December 11, 2022, Orion returned using an unprecedented skip-entry technique and demonstrated performance of its heatshield at a lunar return velocity of 25,000 mph with temperatures exceeding 5,000 degrees F, nearly half the temperature of the Sun's surface. Furthermore, the team executed 21 additional test objectives

on orbit, beyond the initial 124 planned at launch. Most importantly, Artemis I validated the safety and performance of NASA's deep space transportation system that humans will rely upon for future deep space exploration. This award recognizes the significant team effort led by NASA, with major contributions from the European Space Agency, and industry partners including prime contractors: Aerojet Rocketdyne, Boeing, Jacobs, Lockheed Martin and Northrop Grumman. The team's tireless efforts and attention to detail set a new standard for first-time performance of a human space system.

<u>William Line</u>, Physical Scientist, Center for Satellite Applications and Research (STAR)/NOAA/NESDIS is the recipient of the **NOAA David Johnson Award** for outstanding innovative use of Earth Observation Satellite Data. Mr. Line is recognized for his leadership in the development, demonstration, and training of exciting new products for forecasters that employ satellite imagery, including the Advanced Baseline Imager on the GOES-R series and the Visible and Infrared Imaging Radiometer Suite (VIIRS) on the JPSS series. He led research and algorithm development for innovative uses of satellite imagery and often bridged the gap between research, analysis, and forecasting operations. By combining images from different spectral bands he was able to highlight information that enables meteorologists to optimally visualize the evolving state of the atmosphere to aid in forecasting severe weather at National Weather Service Offices.

<u>Lieutenant Colonel Christopher Carson</u>, Materiel Leader of the Next Generation Overhead Persistent Infrared GEO Program, Space Systems Command, United States Space Force, is the recipient of the **General Bernard Schriever Award**.

Lieutenant Colonel Carson led a combined program team of over 2,000 government, civilian, and contractor personnel to design and develop the Nation's next generation of missile warning satellites. Through unparalleled technical ability, Lieutenant Colonel Carson drove a series of accomplishments for the United States Space Force's largest development program including a 13-month critical design review campaign, and simultaneously proving out two competing infrared payload designs with a new space vehicle design. Most notably, Lieutenant Colonel Carson and his team racked up these successes while maintaining a zero-margin schedule to launch. His leadership and professionalism guaranteed the Nation's ability to deter a nuclear conflict for the next 20 years.

**Charles Walter Dingell Jr.,** former Chief Engineer of the Orion Spacecraft, NASA Johnson Space Center, will receive the **Norman L. Baker Astronautics Engineer Award.** For the past 36 years, Mr. Dingell was an exceptional and pivotal resource in the advancement of space technology for human space exploration. Recently retired, he spent the last 17+ years serving as the Chief Engineer of the Orion Spacecraft, the capsule that will take the first woman and person of color to the moon. The Orion Spacecraft will launch from the Space Launch System for the Artemis Missions. Mr. Dingell was instrumental in defining the spacecraft architecture and in achieving a safe, robust spacecraft design. Both achievements led to the delivery and integration of the Orion Spacecraft with the Space Launch System in 2021 in preparation for the Artemis 1 (AR 1) flight test in 2022; execution of the highly successful Exploration Flight Test-1(EFT-1) in 2014; and the successful Pad Abort-1 flight in 2010.

<u>Joel Montalbano</u>, Manager, International Space Station Program, NASA Johnson Space Center, will receive the **Eagle Manned Mission Award** for his immeasurable contributions to the return of human spaceflight to the International Space Station (ISS) from U.S. soil. As ISS Program Manager, Mr. Montalbano is responsible for the overall management, development, integration, and operation of the ISS. This approximately \$4 billion per year, 15-nation program encompasses the design, manufacture, testing, and delivery of complex space flight hardware and software and its integration with modules from International Partners (IP) into a fully functional and operating ISS with a permanent human presence. In addition, he is responsible for policy development, IP negotiations, development of Low Earth Orbit (LEO) commercialization, on-board research and utilization, and the overall safety and health of the crew and on-orbit vehicle.

**John Zarrella**, Space Correspondent, My Radar Space and former CNN Correspondent, will receive the **Press Award** for his 40 plus years of reporting on and providing outstanding coverage of America's space program. He worked for CNN from 1981-2014, covering events such as the Challenger disaster; John Glenn's return to space; multiple national security, robotic and science missions; as well as the final flights of the Space Shuttle Program. John has a passion for the space industry and a thorough understanding of its complexity.

Mr. Zarrella has received numerous accolades and awards for his reporting contributions, including an Edward R. Murrow Award for outstanding news operation while working for WBAL-TV in Baltimore; two Emmy awards at WXIA-TV in Atlanta; and an Outstanding Achievement Award at the 2002 National Hurricane Conference.

From his early days at local news stations to his storied time at CNN and his current ownership of a media consulting firm, he has been a prominent voice for the advocacy of space.

**Dr. Robert Introne**, Director, Electro-Optical System Program Office, NRO/GEOINT/ESPO will receive the **Dr. Joseph V. Charyk Award** for his outstanding personal contribution to the national intelligence space program and its mission. Dr. Introne led a 2,000-member government and industry team that designed, built, tested, and launched three national electro optical imaging satellites that provide tactical and strategic intelligence for the warfighter, Intelligence Community, and the President. He delivered these first-of-a-kind assets, which are the greatest leap in capabilities in the last 30 years, within the time and budget constraints of the program baseline established12 years earlier. While providing this enduring capability against today's threats, Dr. Introne also completed the preliminary design for the next generation satellite constellation to defeat threats for the next two decades.

## Christa McAuliffe Space Educator Award

Christa McAuliffe, a dedicated teacher and the first private citizen selected to fly in space, embodied the spirit of exploration and the pursuit of knowledge. Her passion for education and her dream of making space accessible to students around the world left an indelible mark on the space community. In collaboration with the McAuliffe family and Challenger Center, the National Space Club is proud to announce the *newly named* **Christa McAuliffe Space Educator Award**. This esteemed accolade will continue to recognize and celebrate outstanding educators who exemplify dedication and passion for space exploration and science education among their students.

<u>Melissa Goodall</u>, Computer Programming Instructor, Miami Valley Career Technology Center, Clayton, OH, will receive the **Christa McAuliffe Space Educator Award** for her creativity and dedication as a career space educator inspiring thousands of students to become the next generation of space professionals. As an educator for 24 years, she has incorporated space education and innovation into the classroom through the utilization of space data science teaching with a specialization in programming languages.

Ms. Goodall has helped students to design and prototype projects for Moon habitats, the International Space Station, and beyond. Many of Ms. Goodall's students have won internships at NASA centers and many more now work in space STEM-related careers.

Outside of the classroom, Ms. Goodall has been involved with developing and training STEM and non-STEM instructors to implement data analytics into any curriculum; served as a subject matter

expert in support of curriculum and educational standards development, as a National Science Foundation co-project implementor, and as a member of a House sub-committee working on developing and implementing training modules on computational thinking for pre-service and pre K-12 teachers in Ohio.

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The 67<sup>th</sup> Annual Robert H. Goddard Memorial Dinner on Friday, March 22, 2024 at the Washington Hilton has reached full capacity with all tickets currently sold out. Individuals and organizations interested in attending are encouraged to join the <u>waitlist</u> to secure their spot in line if any tickets become available. For specific questions, please contact the Space Club at <u>info@spaceclub.org</u> or by calling 202-547-0060.

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The National Space Club and Foundation is a 501(c)(3) non-profit organization devoted to fostering excellence in space activity through interaction between industry and government, and through a continuing program of educational support. Youth Education is a premier focus of the Club, providing over \$160,000 in scholarships and internships each year. Awards are offered to recognize outstanding accomplishments in spaceflight, engineering, science, management, and education.

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