National Space Club & Foundation
515 2nd Street, NE
Washington, DC 20002
(P) 202-547-0060 (F) 202-547-6348
www.spaceclub.org

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NATIONAL SPACE CLUB & FOUNDATION ANNOUNCES 2021 AWARD RECIPIENTS

Washington, DC - The National Space Club & Foundation is pleased to announce its Annual Award Recipients. These Awards 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 throughout the United States. The Awards will be presented at the 64th Annual Robert H. Goddard Memorial Dinner taking place at the Washington Hilton Hotel on Friday, September 17, 2021.

Recipients are:

The NASA & SpaceX Crew Demo-2 Team will receive the Club's preeminent award, the **Dr. Robert H. Goddard Memorial Trophy**. The joint NASA and SpaceX team is honored for the extraordinarily successful Demo-2 mission, considered by many to be the single most important achievement in U.S. human spaceflight during 2020. It marked the fulfillment of what had become NASA's aspirational mantra following the retirement of the Space Shuttle in 2011: to once again be able to launch American astronauts, on American rockets, from American soil. As a partnership between NASA and private industry, the Commercial Crew Program represents a dramatic change in how the United States operates in space. SpaceX's Falcon 9 launch of its Crew Dragon spacecraft with NASA astronauts Bob Behnken and Doug Hurley onboard took place on May 30, 2020, from historic Launch Complex 39A at NASA's Kennedy Space Center in Florida. This was the first time that a private company had flown astronauts to and from the International Space Station. After a two-month stay at ISS, Dragon safely returned the crew back home to Earth, splashing down off the coast of Florida in the Gulf of Mexico and bringing the mission to a successful conclusion.

Yash Kadadi, an impressive high-school senior at The Westminster Schools of Atlanta, GA, is the recipient of the **Goddard Memorial Dinner Keynote Scholarship.** He is an active researcher in space weather forecasting technology at NASA Johnson Space Center and possesses a deep, passion for space exploration. His project, SWIFT (Space Weather Imaging + Forecasting Tool), is a next-generation machine learning model that analyzes solar magnetograms and forecasts potentially catastrophic solar weather (such as solar flares) that threaten both astronauts and modern infrastructure. Currently, he is working on integrating his code with NASA's operational toolkit for the Artemis Moon missions as well as future Mars missions. His research has made him a Regeneron

Science Talent Search (STS) Top 300 Scholar, a Regeneron International Science and Engineering Fair (ISEF) Finalist, and a Davidson Fellows Scholarship Honorable Mention.

The Parker Solar Probe Team is the recipient of the **Nelson P. Jackson Award** in recognition of their outstanding contribution to the missile, aircraft and space field by industry. NASA's Parker Solar Probe mission is revolutionizing our understanding of the Sun. Designed, built and operated by the Johns Hopkins Applied Physics Laboratory, the durable spacecraft, "touches the Sun," flying directly through the solar corona, facing brutal heat and radiation while providing unprecedented, close-up observations of our star. These observations are addressing unsolved science questions such as how the Sun's corona is heated and how the solar wind is accelerated – shedding light on how the Sun drives the space environment in our own solar system, and providing insight into other stars throughout the universe.

Parker Solar Probe launched in 2018 and is set to make 24 progressively closer passes to the Sun, swooping to within 4 million miles of the solar surface. In 2017, the spacecraft and mission were renamed after Dr. Eugene Parker, who in the 1950s proposed the concept of the solar wind. The Parker Solar Probe was the first NASA mission to have been named for a living individual.

Dr. David A. Peterson, Meteorologist for the Naval Research Laboratory, Marine Meteorology Division is the recipient of the **NOAA David Johnson Award**. Dr. Peterson is recognized for developing and demonstrating the operational detection and classification of pyroconvective "fire-induced" storms in geostationary satellite imagery. Extreme pyrocumulonimbus (PyroCb) thunderstorm towers can act as mini-volcanoes propelling significant amounts of smoke particle mass to upper tropospheric and lower stratospheric altitudes. Dr. Peterson's efforts have led to the world's first global pyroconvective storm monitoring website, hosted by the Naval Research Laboratory. His research has led to critical new insights into stratospheric composition and radiative energy balance that are perturbed seasonally by PyroCb smoke plumes.

Lieutenant Colonel Marshall Tillis, Chief, NRO Strategy and Plans Division of the National Reconnaissance Office is the recipient of the **General Bernard Schriever Award**. Lt Col Tillis developed the NRO's operational approach and responses to counterspace events affecting NRO operations, directly supporting U.S. national security objectives. He influenced National decision-makers by coordinating and validating NRO planning actions to support the Presidential Daily Briefing. Lt Col Tillis represented the NRO at a National Security Council meeting to brief NRO mission protection actions and response decisions during one of the most significant counterspace events to date. He also led joint exercise efforts to improve the NRO and USSPACECOM partnership ultimately delivering the first-ever combined operational approach between the NRO and the Joint Task Force – Space Defense.

Benjamin (Benji) Reed, Senior Director of Human Spaceflight Programs for SpaceX Center will receive the **Astronautics Engineer Award** for his outstanding leadership of the Crew Dragon program at SpaceX, which successfully launched astronauts Douglas Hurley and Robert Behnken to the International Space Station in May 2020 and returned them safely to Earth in August 2020.

Rajib Dasgupta, Materials and Processes System Manager for the Spacecraft Commercial Crew Program at NASA, and **Matthew Strasberg** Manager of Materials Engineering at SpaceX will receive the **Eagle Manned Mission Award** for their work in the commercial crew program to understand and resolve a poorly understood incompatibility between nitrogen tetroxide and titanium following a catastrophic ground test failure. These individuals and the teams that they represent demonstrate the powerful benefits of government and industry working together to solve the complex problems inherent to the safe operation of human space transportation systems.

Marcia S. Smith, Editor, *Space Policy Online* is the recipient of the **Press Award.** For more than four decades, Ms. Smith helped shape the public's knowledge of space. Her impressive career includes service at the Congressional Research Service on Capitol Hill, the National Research Council's Space Studies, and on Aeronautics and Space Engineering Boards. As founder and editor of *Space Policy Online,* Ms. Smith works tirelessly to provide reliable, accurate news that broadens the public's knowledge of space – highlighting vital, foundational information and analysis about the policy aspects of the U.S. space program. Her leadership and commitment to the space community are evidenced by her extensive catalogue of work and reference materials.

Colonel Samuel A. Little, Deputy Director, Radar System Program Office, National Reconnaissance Office, Geospatial Intelligence Systems Acquisition Directorate, will receive the **Dr. Joseph V. Charyk Award**. Col Little leads over thirty-two hundred government and industry personnel acquiring intelligence satellite systems worth over twenty billion dollars. As the principal for six high-visibility programs, he directly enabled a first-ever, unique launch while guiding his team through multiple small-satellite launches providing first-of-a-kind theater user support, as well as forming new strategic partnerships with Australia and New Zealand. Col Little's distinctive accomplishments undoubtedly reshaped the landscape of National Security Space and ensured delivery of critical future warfighting capabilities.

Matthew M. Hee, Innovation Center Director, Platteville High School, Platteville, WI will receive the **Space Educator Award** for his creativity and dedication as a career space educator engaging, inspiring and educating students about the space frontier. As a Space educator, he provides research opportunities and career guidance to create the next generation of Space professionals.

Emily N. Jackson, a Senior at Howard High School in Ellicott City, MD, will receive the **Olin E. Teague Scholarship**. Her research project stemmed from her 2020 summer internship at Goddard Space Flight Center, where she, along with two other students, developed an autonomous parking mBot robot based on learning an algorithm. Emily led design, algorithm development, and programming and test efforts of the team in a 100% virtual environment. In this project Emily played a lead role in the engineering design process to identify the problem and research mBot capabilities before generating conceptual drawings of a parking map and creating coding flow charts. Through her experience in observing the design process for fixtures of NASA's On-Orbit Servicing Assembly and Manufacturing (OSAM-1) Emily was able to apply the design process for a robotic arm on the satellite to her own smaller-scale robots. Emily continued working on

her project during an Academic Research Experience opportunity at Goddard throughout her senior year of high school.

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Individuals and organizations interested in attending the 64th Annual Robert H. Goddard Memorial Dinner on Friday, September 17 at the Washington Hilton, may find more information on our website www.spaceclub.org. For specific questions, please contact the Space Club at info@spaceclub.org or by calling 202-547-0060.