ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT

ASTRONAUT VISIONARY TRAILBLAZER

Join us in congratulating Dr. Ellen Ochoa for receiving the 2020 RNASA National Space Trophy for her distinguished career and invaluable contributions to science and space exploration. As the first Hispanic female astronaut and retired director of the Johnson Space Center, she represents all the trailblazers who continue to inspire the industry and serve as role models to STEM students everywhere. We look forward to advancing the future of aerospace together.

BOEING

— DR. ELLEN OCHOA —

NATIONAL SPACE TROPHY RECIPIENT

The RNASA Foundation is pleased to recognize Dr. Ellen Ochoa, Retired Johnson Space Center Director, as the 2020 National Space Trophy Recipient.

NOMINATED

Dr. Ochoa was nominated for the award by Mark Geyer, Johnson Space Center Director (JSC), Bob Cabana, Kennedy Space Center Director (KSC), and Michael Coats, former Johnson Space Center Director (2005-2012). In recommending Ochoa, Geyer and Cabana said "Dr. Ellen Ochoa has distinguished herself as a champion for space exploration and scientific discovery through her dedicated service to NASA and to our Nation." Coats remarked "Dr. Ochoa's technical expertise, extensive management experience, and superb communication skills were a perfect fit for her job as JSC Director. She is an exceptional leader and a role model for young women everywhere."

GROWING UP

Born and raised in California, Ellen's father managed a retail store while her mother was a homemaker. Both recognized and emphasized the value of a good education and pushed Ellen and her four siblings to academic excellence. Growing up, Ellen was an accomplished classical flutist and valedictorian of her high school class. Before settling on a career in physics, Ochoa considered a range of career options including journalism, music, and computer science.

Ellen excelled in school but didn't dream of becoming an astronaut until grad school. Ochoa Photo

EDUCATION AND EARLY CAREER

Dr. Ochoa earned her Bachelor of Science degree in Physics from San Diego State University in 1980 and a Master of Science degree and Doctorate in Electrical Engineering from Stanford University in 1981 and 1985. She began her career as a research engineer at Sandia National Laboratories and NASA Ames Research Center. She holds three optical system patents for her work on object recognition and detection of repeating pattern imperfections.

Ellen with her family by her side at her Stanford graduation ceremony. Ochoa Photo

ASTRONAUT

Ellen's interest in the Astronaut program began in 1983 when Sally Ride became the first American woman in space. It was only two years later that Dr. Ochoa applied to the program. Selected to join the Astronaut Corps in 1990, she has completed four space shuttle missions. Ochoa served as mission specialist during her first flight aboard STS-56 in 1993 and payload commander for STS-66 in 1994. Both missions focused on the effects of solar and human activity on Earth's atmosphere. She went on to serve as mission specialist and flight engineer

Ellen played her flute in space on STS-56 as part of an educational video. NASA photo

— DR. ELLEN OCHOA —

NATIONAL SPACE TROPHY RECIPIENT

for STS-96, the first mission to dock with the ISS, and STS-110, the first mission to use the International Space Station's robotic arm to maneuver crew members. In addition to logging nearly 1,000 hours in space, she led the astronaut office support to the ISS program during development of the crew selection, training and operations procedures and to Mission Control during the transition to 24/7 operations. She was inducted into the Astronaut Hall of Fame in May 2017.

Ellen speaking to employees during her tenure as JSC Director. NASA photo

JOHNSON SPACE CENTER

Ochoa was appointed JSC's deputy director of flight crew operations in 2002 before being promoted to director in 2006. In 2007, she was named deputy director of JSC where she stayed until her appointment as JSC's 11th director in 2013. For five and a half years, Dr. Ochoa expertly managed a workforce of over 10,000 civil servants and contractor employees. She championed ISS research opportunities, oversaw the first successful test flight of the Orion spacecraft, collaborated with KSC to develop the Commercial Crew Program, and implemented new ways of doing business to advance human space flight.

As the first female Hispanic astronaut and JSC's first Hispanic director, Dr. Ochoa takes great pride in inspiring young audiences about the importance of science, technology, engineering, and math curriculum (STEM). She has given hundreds of presentations across the country and has served as a role model for thousands of students. She has six schools named after her, several books written about her, and has been profiled in textbooks and on websites geared toward encouraging females and minorities to pursue technical fields. Dr. Ochoa retired from the federal government in 2018 and now serves as Chair for the National Science Board, among other activities.

Ellen has delivered hundreds of speeches and inspired generations of young girls to pursue careers in STEM related fields. Ochoa Photo

AWARDS

She has earned numerous accolades during her 30-year career including NASA's Distinguished Service Medal and four Space Flight Medals. She is a member of the National Academy of Engineering, and a Fellow of the American Association for the Advancement of Science (AAAS), the American Institute for Aeronautics and Astronautics (AIAA), the National Academy of Inventors (NAI), and the Optical Society of America (OSA). She has been inducted into the Astronaut Hall of Fame, the California Hall of Fame and the International Air & Space Hall of Fame.

Ellen receiving the Distinguished Service Medal from NASA Acting Administrator Robert Lightfoot in 2018. NASA photo

HER FAMILY

Dr. Ochoa and her husband, Coe Miles, have two grown sons and live in Idaho. In her spare time, Ellen enjoys playing and listening to music, hiking and travel.

Ellen and her family prior to the launch of STS-110 in 2002. Ochoa Photo

We're Ready for America's Next Giant Leap

Aerojet Rocketdyne congratulates Dr. Ellen Ochoa as the recipient of the National Space Trophy.

AEROJET ROCKETDYNE

rocket.com

— MICHAEL COATS —

NATIONAL SPACE TROPHY PRESENTER

The RNASA Foundation is pleased to welcome Michael Coats, former Johnson Space Center Director and member of the RNASA Board of Advisors, to present the prestigious 2020 National Space Trophy to Dr. Ellen Ochoa.

Born in Sacramento, CA, Coats considers Riverside, Ca, his hometown. He received a BS from the U.S. Naval Academy in 1968, an MS in Administration of Science and Technology from George Washington University in 1977, and an MS in Aeronautical Engineering from the U.S. Naval Postgraduate School in 1979. After designation as a Naval Aviator in 1969 and training as an A-7E pilot he was assigned to Attack Squadron 192 aboard the USS Kitty Hawk. Between 1970 and 1972 he flew 315 combat missions in Southeast Asia. He then attended the U.S. Naval Test Pilot School in Maryland where he was a project officer and test pilot for the A-7 and A-4 at the Strike Aircraft Test Directorate, followed by 18 months as a Naval Test Pilot School Flight Instructor. All told, Coats has logged more than 6,500 hours in 28 different types of aircraft and completed 406 carrier landings.

Coats was selected as an astronaut in 1978 and piloted three space flights including STS 41-D in 1984, the maiden flight of Discovery. He went on to command STS-29 and STS-39. He logged more than 460 hours in space.

Between 1991 and 2005, Coats worked for Loral Space Information Systems, Lockheed Martin Missiles and Space, and Lockheed Martin Space Systems Company. He was the Director of JSC from 2005 until 2012. Under his leadership, JSC implemented over 80 partnerships and hosted summits and job fairs to help displaced workers. To help NASA attract and retain future leaders, Coats instituted the Program Project Management Development, the Space Systems Engineering Development, and the Project Leadership programs.

Astronaut Michael L. Coats removes film from jammed IMAX camera on STS 41-D in 1984. NASA Photo

Coats has been recognized with numerous awards including the 2012 RNASA National Space Trophy, three Distinguished Flying Crosses, the FAI Gold Space Medal, election as a Fellow of the American Institute of Aeronautics, and induction into the Astronaut Hall of Fame in 2007.

He is now the proud full-time “Pops” to three adorable and perfect granddaughters.

— ROBERT CABANA —

NATIONAL SPACE TROPHY PRESENTER

The RNASA Foundation is pleased to welcome NASA Associate Administrator, Robert Cabana, to present the prestigious 2020 National Space Trophy to Dr. Ellen Ochoa.

Robert Cabana is a former NASA astronaut, currently serving as the agency's associate administrator, its third highest-ranking executive and highest-ranking civil servant. Before taking that position, Cabana was director of NASA's John F. Kennedy Space Center in Florida. In that role, Cabana managed all NASA facilities and activities at the spaceport, including the team of civil service and contractor employees who operate and support numerous space programs and projects.

Born in Minneapolis, Minnesota, Cabana graduated from the U. S. Naval Academy in 1971 with a bachelor's degree in mathematics. He was commissioned a second lieutenant in the U.S. Marine Corps and completed Naval Flight Officer training in Pensacola in 1972. Cabana then served as an A-6 bombardier/navigator with Marine Air Wings in Cherry Point, North Carolina, and Iwakuni, Japan.

Returning to Pensacola in 1975, Cabana began pilot training and was designated a naval aviator in September of 1976, earning the Daughters of the American Revolution award as the top Marine to complete flight training that year. He graduated with distinction from the U.S. Naval Test Pilot School in 1981 and served in the Flight Systems Branch at the Naval Air Test Center until 1984. During his career, Cabana has logged over 7,000 hours in 50 different kinds of aircraft.

Cabana was selected as an astronaut candidate in June 1985 and completed his initial astronaut training in July 1986. He was assigned to the Lyndon B. Johnson Space Center Astronaut Office, serving in a number of leadership positions, including lead astronaut in the Shuttle Avionics Integration Laboratory; Mission Control Spacecraft Communicator, famously known as CAPCOM; and chief of NASA's Astronaut Office.

A veteran of four spaceflights, Cabana has logged 38 days in space, serving as the pilot on STS-41 and STS-53 and mission commander on STS-65 and STS-88. His fourth flight was the first assembly mission of the International Space Station in December of 1998. Following his retirement as a colonel from the Marine Corps in September 2000, Cabana was appointed a member of the Federal Senior Executive Service. He served in numerous, challenging senior management positions at Johnson Space Center in Houston, ultimately becoming deputy director.

In October 2007, Cabana was appointed director of NASA's John C. Stennis Space Center in Mississippi. A year later he was reassigned as the tenth director of the John F. Kennedy Space Center.

Cabana's many achievements have been recognized with induction into the Astronaut Hall of Fame and being named an Associate Fellow in the American Institute of Aeronautics and Astronautics and a Fellow in the Society of Experimental Test Pilots. He has received numerous personal awards and decorations, including the Distinguished Flying Cross, two Presidential Distinguished Rank Awards, and the National Space Club Florida Committee's Dr. Kurt H. Debus Award. He is also a recipient of the Rotary National Award for Space Achievement's National Space Trophy and in 2020, was recognized as a Distinguished Graduate of the United States Naval Academy.

— PAST NST RECIPIENTS —

ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT

TOP ROW (L to R)
1987 - Maxime Faget
1988 - Don Fuqua
1989 - Richard Truly
1990 - Lew Allen
1991 - Aaron Cohen
1992 - Norman Augustine

SECOND ROW (L to R)
1993 - Thomas Stafford
1994 - Edward C. Aldridge
1995 - Daniel Goldin
1996 - Robert L. Crippen
1997 - George W.S. Abbey
1998 - George H.W. Bush

THIRD ROW (L to R)
1999 - Christopher C. Kraft
2000 - John W. Young
2001 - Tommy Holloway
2002 - George E. Mueller
2003 - Roy S. Estess
2004 - Neil A. Armstrong

FOURTH ROW (L to R)
2005 - Glynn S. Lunney
2006 - Eileen Collins
2007 - Eugene F. Kranz
2008 - Eugene Cernan
2009 - Michael D. Griffin
2010 - Bill Gerstenmaier

FIFTH ROW (L to R)
2011 - Kevin P. Chilton
2012 - Michael L. Coats
2013 - Kay Bailey Hutchison
2014 - Charles F. Bolden
2015 - Robert D. Cabana
2016 - Charles Elachi

SIXTH ROW (L to R)
2017 - John Grunsfeld
2018 - Robert Lightfoot
2019 - David Thompson

— BILL INGALLS —

SPACE COMMUNICATOR AWARD

The space shuttle Discovery awaiting launch at the Kennedy Space Center in Florida. NASA/Ingalls Photo

The RNASA Foundation is pleased to recognize Bill Ingalls, Senior NASA Contract Photographer, as the 2020 Space Communicator Award Recipient.

For over three decades Bill Ingalls has been capturing NASA's most spectacular moments through his camera lens. His career was born in 1987 when he landed an internship at NASA's communications office. After graduating from the Waynesburg College with two Bachelor of Art degrees in English and Visual Communications, Ingalls returned to NASA in 1989.

Bill has crisscrossed the globe photographing some of our country's most historic and compelling images. His iconic photos have captured Neil

NASA astronaut Mike Fossum, Russian cosmonaut Sergei Volkov, and Japanese astronaut Satoshi Furuka exit the Soyuz TMA-02M after a 5-month stay on the International Space Station. NASA/Ingalls Photo

The Soyuz MS-06 landing near Zhezkazgan, Kazakhstan on February 28, 2018. NASA/Ingalls Photo

Armstrong's burial at sea, Space Shuttle Endeavor's final landing in 2011, and the first launch of a US citizen on a Russian rocket. As one of NASA's most senior photographers, Bill manages over 400 projects annually and supervises a team of six.

His assignments have taken him to some of the most extreme environments imaginable. He has been lowered into an active volcano in Alaska, endured -17° temperatures for a Soyuz landing in the Kazakh steppes, and flown through a hurricane aboard a DC-8.

Bill is the second photographer to ever be honored with the National Space Club Press Award. The award was first given to legendary broadcast journalist Edward R. Murrow. Bill's work has been highlighted in National Geographic, Newsweek, TIME, The Washington Post, Fortune, People, The New York Times, and the Los Angeles Times and has been featured on NBC, CBS and ABC News. To view more of his work please visit Bill's website at ingallsimages.com.

— ROB NAVIAS —

SPACE COMMUNICATOR PRESENTER

The RNASA Foundation is pleased to welcome Rob Navias, Johnson Space Center Public Affairs Office (PAO) Mission Commentator and lead for the Program and Television Operations as tonight's Space Communicator Award Presenter.

Long known as the iconic voice of Mission Control, Navias covered every shuttle mission from the maiden launch of Columbia in April 1981 to Atlantis' final voyage in July 2011, either as a member of the news media or as a NASA employee.

Navias started as a network broadcast radio correspondent in 1972 based in San Francisco with the Associated Press Radio Network. It was there that he got his first taste of the space beat when he reported on the voyage of Pioneer 11, a robotic space probe that studied the asteroid belt and the rings of Saturn. In 1977, he covered the test flights for the space shuttle Enterprise at Edwards Air Force Base in California. While in San Francisco with AP, Navias also covered such stories as the Patricia Hearst kidnapping and trial, as well as the Voyager missions from the Jet Propulsion Laboratory in Pasadena, CA.

He moved on to the United Press International (UPI) Radio Network in 1982 where he served as a Capitol Hill correspondent in Washington D.C. while continuing to cover all space shuttle missions at the Kennedy Space Center. Over the next ten years with UPI he crisscrossed the country to cover high profile stories such as the 1984 Olympics in Los Angeles and Hurricane Andrew in Miami. Navias was at the Kennedy Space Center on the air when the Challenger tragically exploded 73 seconds after liftoff in 1986. He concluded his media career in 1992 as a correspondent for the CBS Radio Network based in Miami, all the while continuing his coverage of NASA and the space shuttle program.

Rob Navias receiving the 2017 Space Communicator Award from Jeff Carr. RNASA Photo

His career with NASA began in 1993. He was recruited to work in the Office of Public Affairs at the Johnson Space Center where he not only managed the flow of information via radio and TV but he did so with unmatched clarity.

In addition to coverage of the space shuttle, Navias has been the lead for Public Affairs operations involving Russian launch and landing operations of U.S. astronauts and international partner crewmembers for the past two decades. Having spent considerable time in Moscow and in Kazakhstan, Navias has been to the launch site in Baikonur, Kazakhstan for Soyuz and other International Space Station element launches and preparatory meetings over a hundred times and has ridden Russian military helicopters to Soyuz landing sites in Kazakhstan dozens of times to recover space station crewmembers.

Navias was the recipient of the 2017 RNASA Space Communicator Award. Most recently, Navias called the launch of NASA's James Webb Space Telescope from Kourou, French Guiana on Christmas Day, 2021.

— SARAH CRUDDAS —

EMCEE

The RNASA Foundation is pleased to welcome space journalist and international TV host Sarah Cruddas as tonight's emcee.

Sarah earned a BSc in Physics with Astrophysics from the University of Leicester, and a Post Graduate Diploma in Broadcast Journalism from the University of Westminster. She began her career as a broadcast journalist with the BBC, where she covered the final space shuttle launch and landing in 2011.

Currently, Sarah hosts UFO Conspiracies with Craig Charles on Sky History and is a co-host of 'Contact' on the Discovery Channel and Science Channel. Sarah is also the host and co-executive producer of the space technology podcast 'Where's My Jetpack?'

As a highly-regarded science correspondent, Sarah regularly appears on Sky, BBC, Good Morning Britain, CNN and ITV News. She is also a frequent host of radio documentaries and contributes to BBC Radio. Among her most recent credits, Sarah hosted live coverage of the SpaceX Crew Dragon Demo and NASA'S Perseverance Rover with Bill Nye in 2020 and, in 2019, appeared alongside Pharrell, Jared Leto and Neil deGrasse Tyson on a video celebrating the 50th anniversary of the Apollo 11 lunar landing. She has also worked on two documentary movies – Last Man on the Moon in 2014 and Mission Control: The Unsung Heroes of Apollo in 2017.

In addition to her extensive television and radio experience, Cruddas has authored four books including Findout! Solar System, Do you know about space?, The Space Race: The journey to the Moon and beyond and Look Up: Our story with the stars. Her writing can also be found in publications

such as New Scientist, CNN, The Sunday Times, The Telegraph and the Royal Aeronautical Society.

As commercial space development continues to expand at lightning speed, Sarah has criss-crossed the globe working with leaders such as Jeff Bezos, Buzz Aldrin, Tim Peake, Canadian Prime Minister Justin Trudeau, NASA, the Commander of US Space Command, Jim Bridenstine, Jan Worner, The Space Foundation, Virgin Galactic, The Gates Foundation, Boeing, Cobham, Mercedes, SXSW, Samsung, the UK department for trade and industry, The Ministry of Defence, SETI and ESA.

Sarah sits on Space for Humanity's Board of Directors and is an honorary advocate of the Space Frontier Foundation.

When commenting on her mission, Sarah reflects that "Space inspires. It is a topic which is as much about philosophy as it is science – a search for meaning and a quest to answer fundamental questions such as Where did we come from? Why do we exist? And what else is out there in this vast universe we belong to?"

— STEVE ISAKOWITZ —

FEATURED SPEAKER

The RNASA Foundation is pleased to welcome Steve Isakowitz, The Aerospace Corporation President and CEO, as tonight's featured speaker.

Steve Isakowitz is a recognized leader across the government, commercial, space and technology sectors, who has worked tirelessly throughout his career on behalf of the public good in space.

He currently serves as President and CEO of The Aerospace Corporation, a leading architect for the nation's space programs, where he heads up efforts to outpace threats to the country's national security while nurturing the technologies needed to further a new era of space commercialization and exploration. With his guidance, Aerospace's national workforce of more than 4,100 employees provides objective technical expertise and thought leadership to solve the hardest problems in space and assure mission success for space systems and space vehicles.

Over the course of his more than 30-year career, Isakowitz has made impactful contributions across a number of prominent roles, including at NASA, the U.S. Department of Energy, the White House Office of Management and Budget, and industry. His work has led to renewed plans to send humans to the moon, spurred government-wide efforts to research climate change, furthered the pursuit of breakthrough new clean energy technologies, and opened up commercial frontiers of space. Prior to joining Aerospace, Isakowitz was President at Virgin Galactic, where he led development of LauncherOne, a novel air-launched orbital rocket to launch smaller satellites in a rapidly growing

Steve Isakowitz welcomes students from the Massachusetts Institute of Technology, his alma mater, on a tour of Aerospace facilities in 2019. (Courtesy of The Aerospace Corporation)

market, and oversaw groundbreaking development of SpaceShipTwo, a reusable, all-composite, winged vehicle to support suborbital launch of future astronauts.

Isakowitz serves on various advisory boards including at the Massachusetts Institute of Technology, Loyola Marymount University, NASA's Jet Propulsion Laboratory, the Council on Competitiveness and has served on the FAA's Commercial Space Transportation Advisory Committee. He authored a noted book on space launch, and his work has been widely recognized and awarded, including with the NASA Outstanding Leadership Medal and the Presidential Distinguished Rank Award.

— DR. CHRIS KRAFT —

IN MEMORY OF

The RNASA Foundation would like to recognize the late Dr. Christopher C. Kraft, Jr. (1924-2019), NASA's first flight director and recipient of the 1999 National Space Trophy.

Kraft joined NASA's Space Task Group in 1958 and played an integral role in all aspects of manned flight operations.

Kraft graduated from Virginia Polytechnic Institute with a B.S. in aeronautical engineering. In 1945, he joined the National Advisory Committee for Aeronautics (NACA), NASA's predecessor. He spent fourteen years testing military aircraft and earned valuable experience as a troubleshooter of tedious design problems and gained a reputation for solving conflicts.

After Sputnik in 1958, Kraft joined the Space Task Group as one of the original 36 members that developed Project Mercury. Kraft created the original engineering and operations standards and oversaw the birth of Houston's Mission Control Center. He developed the processes required for manned space missions including details such as go/no-go decisions, space-to-ground communications, space tracking, problem solving and crew recovery.

Kraft played a vital role in the Mercury Program, the Gemini Program, the Apollo Program, the Skylab Program, the Apollo-Soyuz Test Project, and the first four flights of the Space Shuttle. Kraft was appointed Deputy Director of the Manned Spacecraft Center (now Johnson Space Center) in 1969. He became Director of JSC in 1972 (following in the footsteps of his mentor, Robert R. Gilruth) and served in this capacity until his retirement in 1982.

After his retirement in 1982, Kraft was an aerospace consultant and served on the Board of Directors for a number companies such as IBM and Rockwell International. In addition, he served as Director-at-Large of the Houston Chamber of Commerce, and as a member of the Board of Visitors at Virginia Tech.

Kraft at the Flight Director console in the Mission Control Center during Gemini-Titan V flight simulation on Aug. 15, 1965. NASA Photo

Kraft was the recipient of numerous honors and a wards including NASA's Outstanding Leadership Medal from the President of the United States in 1963, The Louis W. Hill Space Transportation Award from the AIAA, several NASA Distinguished Service Medals, and the distinguished service medal of the National Advisory Committee of Aeronautics (NACA). In 2011, NASA renamed its Building 30 Mission Control Center, The Christopher C. Kraft, Jr. Mission Control Center, in his honor.

His book, FLIGHT: My Life in Mission Control, was published in March 2001 and was a New York Times bestseller.

Kraft is survived by his wife, two grown children and five grandchildren. He was 95.

— GLYNN S. LUNNEY —

IN MEMORY OF

The RNASA Foundation would like to recognize the late Glynn S. Lunney (1936-2021), a 16-year veteran of the RNASA Stellar Awards Evaluation panel and recipient of the 2005 National Space Trophy.

After graduating from the University of Detroit with a Bachelor of Science degree in aerospace engineering Lunney began his career at NACA's Lewis Research Center as a researcher in aerospace dynamics.

Lunney quickly transitioned to NASA's Langley Research Center where he joined the Space Task Group in September 1959. He was the second Flight Dynamics Officer for project Mercury and later served as Flight Director for Gemini missions 9 through 12.

He moved to Houston in 1962 where he was selected as NASA's fourth flight director. He was later named Chief of the Flight Directors Office in 1968. Using the call sign "black flight", his teams led Apollo missions 7, 10, 11 and 13.

When asked about the harrowing four days following the Apollo 13 explosion, Glynn was quoted as saying, "I felt that the Black Team shift immediately after the explosion and for the next 14 hours was the best piece of operations work I ever did or could hope to do. It posed a continuous demand for the best decisions often without hard data and mostly on the basis of judgment, in the face of the most severe in-flight emergency faced thus far in manned space flight." His team was awarded the Presidential Medal of Freedom, the highest civilian honor.

In 1972, Lunney was selected as project manager for the Apollo-Soyuz Test Project (ASTP), a mission to dock an American Apollo spacecraft and a Soviet Soyuz. Lunney's work helped lay the groundwork for the cooperation that was later necessary to construct the International Space Station.

Lunney went on to serve as manager of the Shuttle Payload Integration and Development Program, Acting Associate Administrator for Space Transportation Operations in Washington D.C., and manager of the Space Shuttle program where he personally directed a budget in excess of $1.5 billion.

Lunney delivering an acceptance speech for the 2005 NST Award. RNASA Photo

Lunney left NASA in 1985 and joined Rockwell International in California. He returned to Houston in 1990 as President of the Rockwell Space Operations Company providing support for flight operations at Johnson Space Center. Rockwell merged with Lockheed Martin to form United Space Alliance in 1995. It was there that Lunney acted as Vice President and Program Manager of the United Space Alliance's spaceflight operations in Houston until his retirement in 1999.

Mr. Lunney is survived by his wife, 4 children, and 12 grandchildren. He was 84 years old.

— ARNOLD ALDRICH —

IN MEMORY OF

The RNASA Foundation would like to recognize the late Arnold Aldrich (1936-2020), former director of NASA's Space Shuttle Program and a 12-year veteran of the RNASA Stellar Awards Evaluation panel.

Aldrich began his career with NASA in 1959 as a member of the Project Mercury Space Task Group at Langley Field, VA. He spent most of his 35 year NASA career at the Johnson Space Center where he held a number of key flight operations and operations management positions during the Mercury, Gemini, and Apollo programs. Subsequently, he served as Skylab Deputy Program Manager; Apollo Spacecraft Program Office Deputy Manager during the Apollo Soyuz Test Project with the Soviet Union; Orbiter Project Manager, where he oversaw the development of the Orbiters Discovery and Atlantis; and Space Shuttle Program Manager.

Following the Challenger accident, Mr. Aldrich was appointed Director of the National Space Transportation System (Space Shuttle Program) at NASA Headquarters where he led Space Shuttle program recovery. He subsequently served as Associate Administrator for Aeronautics Exploration and Technology and, later, Associate Administrator for Space Systems Development.

Upon retirement from NASA, Mr. Aldrich joined Lockheed Missiles and Space Company in Sunnyvale, CA as Vice President, Commercial Space Business Development and, subsequently, Vice President, Strategic Technology Planning. With the merger of Lockheed and Martin Marietta, he became Director of Program Operations at Lockheed Martin Corporate headquarters in Bethesda, MD, leading program management improvement initiatives across the corporation. Mr. Aldrich retired from Lockheed Martin in 2007 and went on to consult in the aerospace industry.

Mr. Aldrich was the recipient of numerous honors and awards including the Presidential

2013 RNASA Banquet: Marilyn & Glynn Lunney, Mike Griffin, Floyd & Carolyn Bennett, Clay Boyce, Arnold Aldrich.

Rank of Distinguished Executive, Presidential Rank of Meritorious Executive, NASA Distinguished Service Medal, Arthur S. Fleming Award, NASA Outstanding Leadership Medal, the NASA Exceptional Service Award and the NASA Distinguished Service Medal. He was a fellow of the American Institute of Aeronautics and Astronautics and the American Astronautical Society, a member of the International Academy of Astronautics and served on the Bureau of the International Astronautical Federation.

Apart from his technical and managerial accomplishments, Mr. Aldrich is remembered as an insightful leader and inspiring mentor who contributed to the personal development and successes of the many friends and colleagues whose lives he touched. Arnold is survived by his wife of 61 years, two children and four grandchildren. He was 83 years old.

— FLOYD BENNETT —

IN MEMORY OF

The RNASA Foundation would like to recognize the late Floyd Bennett (1932-2020), Chairman of the RNASA Foundation from 2002-2007.

Bennett earned his B.S. in Aeronautical Engineering from Virginia Polytechnic Institute in 1954. His career began at NASA's Langley Research Center in Hampton, VA where he was an Aerospace Technologist. From there, he transitioned to the Space Task Group in 1961.

During his time at NASA, Bennett served in many roles including Chief of the Mission Planning and Analysis Division and Manager for Computer Systems Integration for the Space Shuttle Program Office. One of Bennett's primary roles during the Apollo program was modeling mission trajectories.

Bennett's work was recognized in 1969 when his team successfully pinpointed the location of Surveyor 3, an unmanned craft that had landed on the lunar surface in 1967. They went on to calculate Apollo 12's landing site to within 200 meters of Surveyor's location. Astronaut Pete Conrad and Alan Bean walked to the craft and successfully returned artifacts to Earth for analysis. Bennett received NASA's Exceptional Service Medal for his role.

Astronaut Pete Conrad with Surveyor 3. The Apollo 13 lander can be seen in the distance.

While planning for Apollo 15's landing site, Bennett employed the use of a rudimentary drawing program to illustrate a 4,000 foot lunar mountain range that could be used as a landmark for Astronauts David Scott and James Irwin. That range was nicknamed "Bennett Hill" for his contribution to the successful landing of Apollo 15.

Bennett retired from NASA in 1982 and joined Perkin-Elmer as a Mission Manager for the Solar Optical Telescope Project. He returned to Houston in 1987 where he joined the Rockwell Corporation before moving on to the United Space Alliance where he later retired.

Bennett received numerous awards including the Manned Spacecraft Center Certificate of Commendation, the NASA Exceptional Service Medal, and several Team Awards/Citations for Apollo and Shuttle Programs.

Published in 2016, Bennett authored *They're Going To The Moon In My Lifetime*, a memoir chronicling his time at NASA.

Bennett is survived by his wife, four children, four grandchildren, and one great grandchild.

— RANDY BRESNIK —

STELLAR AWARD PRESENTER

The RNASA Foundation is pleased to welcome NASA Astronaut and retired United States Marine Corps Colonel Randy Bresnik as a Stellar Award presenter.

Bresnik earned a Bachelor of Arts degree in Mathematics from The Citadel in 1989, and later a Master of Science degree in Aviation Systems from the University of Tennessee-Knoxville in 2002. In May 1989, he received his commission as a Second Lieutenant in the U.S. Marine Corps. He was designated a Naval Aviator in 1992 and reported to the Navy Fighter/Attack Training Squadron VFA-106, Cecil Field, Florida, for initial F/A-18 training. His first squadron was VMFA-212 at Marine Corps Air Station Kaneohe Bay, Hawaii, then MCAS El Toro and MCAS Miramar, California, where he made three overseas deployments to the Western Pacific. While assigned to VMFA-212, Bresnik attended the Marine Corps Weapons and Tactics Instructors Course (WTI) and Naval Fighter Weapons School (TOPGUN). He attended U.S. Naval Test Pilot School (USNTPS) at NAS Patuxent River, Maryland, in 1999, and then served as F/A-18 Test Pilot/Project Officer/Project Coordinator at VX-23, the Naval Strike Aircraft Test Squadron on the F/A-18 A-F variants. In November 2002, he reported to Marine Aircraft Group 11 (MAG-11) as the Future Operations Officer. In January 2003, MAG-11 deployed to Ahmed Al Jaber Air Base, Kuwait. From Al Jaber, Bresnik flew combat missions in the F/A18 with VMFA (AW)-225 in support of Operation Southern Watch and Operation Iraqi Freedom.

Bresnik was selected as a member of NASA Astronaut Group 19 in May 2004 and completed his Astronaut Candidate Training in February 2006. In 2009, Bresnik served as the Flight Engineer on STS-129, an 11-day mission that included three spacewalks. He is the first graduate of The Citadel to have the opportunity to fly in space.

In 2017, he launched aboard Soyuz 51S from the Baikonur Cosmodrome on ISS Expedition 52/53. Bresnik served as Flight Engineer aboard the Soyuz 51S and Expedition 52 as well as Commander of the International Space Station for Expedition 53.

In 2010, Bresnik trained as a Cave-a-naut in the extreme environment training of the European Space Agency's Cooperative Adventure for Valuing and Exercising human behavior and performance Skills (CAVES), in Italy. This was the first spaceflight analog of its type living deep beneath the surface of the Earth. From September 7 – 13, 2014, he commanded the NEEMO 19 undersea exploration mission aboard the Aquarius underwater laboratory. As Aquanauts, their mission focused on the evaluation of time-delay and telementoring operations for Environment Mission Operations program.

Bresnik's awards and military decorations include the Legion of Merit, Defense Meritorious Service Medal, Meritorious Service Medal, Strike/Flight Air Medal (3), Navy and Marine Corps Commendation Medal with Combat "V" (3), Navy and Marine Corps Achievement Medal (3), and the Presidential Unit Citation.

He is married to the former Rebecca Burgin who is the lead Attorney for International Law at the Johnson Space Center. They have a son and a daughter.

He enjoys travel, music, photography, classic cars, scuba diving, motorcycling, flying warbirds, and being a father.

— DR. JESSICA MEIR —

STELLAR AWARD PRESENTER

The RNASA is pleased to welcome Dr. Jessica Meir as one of tonight's Stellar Award presenters.

A first generation American born and raised in Maine, Meir dreamed of going to space from the time she was five. She attended Brown University, where in 1999 she received her BA in Biology. She went on to earn a Master of Science in Space Studies from the International Space University in 2000 and a Doctorate in Marine Biology from the Scripps Institution of Oceanography (UCSD) in 2009. She studied the diving physiology of emperor penguins and elephant seals for her PhD research, and the high-altitude physiology of the bar-headed goose for her post-doctoral work. She accepted a position as Assistant Professor at Harvard Medical School/ Massachusetts General Hospital in 2012.

From 2000-2003, Meir worked for Lockheed Martin as an experiment support scientist for the Human Research Facility at Johnson Space Center. While there, she participated in research flights aboard the famous "Vomit Comet" and served as an aquanaut crew member for a NASA-NOAA NEEMO mission in Key Largo.

In 2013, Meir was selected as one of eight members for the 21st NASA astronaut class. Once in the astronaut office, Meir served as Lead CapCom for three missions, the ground IV for two ISS spacewalks, and a member of the European Space Agency (ESA) on a CAVES mission in Italy.

Then, her childhood dream came true. Meir launched aboard Soyuz MS-15 to the ISS in support of Expedition 61 and 62 in September 2019. While serving as Flight Engineer, Meir and teammate Christina Koch made history with the first three, all women spacewalks, totaling 21 hours and 44 minutes. During her seven-month stay, the crew contributed to hundreds of experiments in biology, Earth science, human research, physical sciences and technology development.

Meir working aboard the ISS during Expedition 62. NASA Photo

Since returning from space, Meir has served as the Assistant to the Chief Astronaut for SpaceX and as the Deputy of the Flight Integration Division (CK).

Dr. Jessica Meir was one of TIME magazine's 100 most influential people of 2020, and her numerous awards include: UCSD Outstanding Alumni Award 2021; Achievement Rewards for College Scientists (ARCS) Foundation Alumni Hall of Fame (2020); Guinness Book of World Records: First All-Female Spacewalk (10 Oct 2020); Maine Women's Hall of Fame (2022); Honorary doctoral degrees from Brown University, Bowdoin College, Luleå University (Sweden).

In an interview Meir stated, "Floating in space brings out this childlike quality in everybody. Everything is simply more fun! Our days are very busy on the International Space Station, but I love that we're always doing something different. The highlight of my mission was likely the spacewalks, but of course, as a scientist, I reveled in conducting the diversity of experiments." When she is not spacewalking, Meir enjoys spending time in nature, hiking, skiing, or SCUBA diving whenever possible.

— GALA AGENDA —

ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT

Friday, April 29, 2022
Houston Hyatt Regency Imperial Ballroom

6:00 RECEPTION

7:00 WELCOME
Rodolfo González, Chairman, RNASA Foundation

PRESENTATION OF THE COLORS
Clear Lake High School, Jr. ROTC

NATIONAL ANTHEM
Danny Myers

INVOCATION
Reverend Preston Morgan, Senior Pastor, Clear Lake United Methodist Church

DINNER

8:15
YEAR-IN-REVIEW FILM
Space City Films

MASTER OF CEREMONIES
Sarah Cruddas, Space Journalist and International TV Host

FEATURED SPEAKER
Steve Isakowitz, Aerospace

PRESENTATION OF SPACE COMMUNICATOR AWARD TO BILL INGALLS
Rob Navias

PRESENTATION OF STELLAR AWARDS
NASA Astronauts Randolph J. Bresnik and Jessica Meir

PRESENTATION OF NATIONAL SPACE TROPHY TO DR. ELLEN OCHOA
Michael Coats
Robert Cabana

PRESENTATION OF THE OMEGA WATCH
General Thomas Stafford

RECOGNITION OF SPONSORS AND CLOSING

— 2022 SPONSORS —

ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT

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OMEGA Watches

ELLEN OCHOA'S PORTRAIT
SAIC

STELLAR AWARD PENS
Fisher Space Pens

STELLAR AWARD EVALUATION PANEL
Michael Coats
David Thompson
Dr. Sandra Magnus
Dr. Charles Elachi

SPECIAL THANKS
Jeffrey Carr
Irene Chan
Craig Insurance
Mark E. Hollis, CPA
Veronica McGregor
Hyatt Regency Houston
MRI Technologies
NASA Johnson Space Center
Space Center Rotary Club

— THOMAS STAFFORD —

OMEGA WATCH PRESENTER

Once again, OMEGA has generously donated a watch to the recipient of the National Space Trophy. The watch is presented by Lt. Gen. Thomas P. Stafford, USAF (Ret.), the recipient of the Trophy in 1993, and a member of the RNASA Board of Advisors. From Weatherford, Oklahoma, Stafford graduated from the U.S. Naval Academy in 1952 and became an Air Force fighter and test pilot. He was the pilot for Gemini 6 in 1965 and the commander for Gemini 9 the next year. Stafford commanded Apollo 10 in 1969 and Apollo-Soyuz in 1975. He left NASA to command the Air Force Flight Test Center, and in 1978 became Deputy Chief of Staff at Air Force Headquarters in D.C. He retired in 1979, and co-founded the consulting firm of Stafford, Burke, and Hecker in Alexandria, Virginia. In 1990, Stafford chaired the team that prepared "America at the Threshold" to advise NASA on returning to the Moon and exploring Mars.

— EILEEN COLLINS —

STELLAR LUNCHEON SPEAKER

COLONEL EILEEN COLLINS, USAF (Ret.) has blazed a few trails throughout her accomplished career. In 1995, she became the first woman to pilot a shuttle, serving on Discovery's STS-63 mission. Four years later in 1999, she became NASA's first female shuttle commander, leading Columbia on a mission to deploy the Chandra X-Ray Observatory. Collins earned her BA in math and economics from Syracuse University in 1978, a Master of Science degree in operations research from Stanford University in 1986, and a Master of Arts degree in space systems management from Webster University in 1989. Following graduation, she was a T-38 instructor pilot and a C-141 commander and instructor. From 1986 to 1989, Collins taught math at the USAF Academy in Colorado and was a T-41 instructor, before being selected as an Astronaut in 1990. She has logged more than 6,500 hours in 30 different types of aircraft and spent more than 38 days in space. She was the recipient of the RNASA's 2006 National Space Trophy.

— RNASA FOUNDATION —

ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT

All Rows L to R:

Second Row: Duane Ross, Frank Perez, Tim Kropp, Gary Johnson, Geoff Atwater (Treasurer), Rodolfo Gonzalez (Chairman), Bill Taylor (Vice Chairman), Bob Wren

First Row: Shelley Baccus, Delia Stephens, Maria Montemayor (Secretary), Irene Chan, Mary Alys Cherry, Lindsey Cousins, Jenny Devolites

Not Pictured: John Branch, Jeff Carr, Stephanie Castillo, Nellie Chappell White, Steven Fredrickson, Stan Galanski (Space Center Rotary President), Susan Gomez, Trey Hall, Marcus Havican, Zach Holliday, Rich Jackson, Norm Knight, Veronica McGregor, Raymond Moore (Space Center Rotary President), Matt Ondler, Mike Porterfield (Space Center Rotary President), Jayant Ramakrishnan, Kevin Repa, Branelle Rodriguez, Celina Rogers, Daryl Schuck, Jeff Siders, Linda Singleton, Daryl Smith.

The Rotary National Award for Space Achievement (RNASA) Foundation was founded in 1985 to organize and coordinate an annual event to recognize outstanding achievements in space and create greater public awareness of the benefits of space exploration. Each year, the Foundation presents the National Space Trophy (NST) to an outstanding American (see previous winners on page 8) who has made major contributions to our nation's space program.

Nominations are solicited each fall from leaders in government, industry, and professional organizations. The winner is selected by a vote of the RNASA's Board of Advisors (page 38) that includes current and former NASA center directors, leaders of aerospace corporations, space journalists, and previous award recipients.

Since 1989, the RNASA Foundation has also recognized the heroes of the space program with Stellar Awards (pages 28-37) for individual and team achievements.

The RNASA Foundation is a nonprofit organization governed by a Board of Directors, a majority of whom must be members in good standing of the Space Center Rotary (SCR) club. One third of the directors are elected each June for three-year terms except for the SCR president who serves for one year while president.

The RNASA Committee (pictured) serves the board and includes the directors, officers, corporate representatives, event coordinators, and dedicated Rotarians who help organize and produce a quality and memorable evening for our sponsors (page 21) and guests.

Excess funds remaining after event expenses are donated to space-related programs. Following the 2019 event, proceeds were donated to the NASA Aerospace Scholars Program which provides thousands of students the opportunity to experience the exciting work being done at Johnson Space Center.

The RNASA Foundation is grateful for the enthusiasm and support it receives from the aerospace industry, educational organizations, NASA, and the Department of Defense that allows the continued recognition of outstanding achievements in space exploration.

— STELLAR AWARDS PROGRAM —

ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT

Each fall, the RNASA Foundation solicits Stellar Award nominations of space industry workers and teams deserving of special recognition. All nominees are treated to an insiders' tour of Johnson Space Center (JSC) and an awards luncheon with a distinguished speaker. Nominees receive framed certificates of recognition and blue ribbons to wear at the evening banquet so that guests can identify them and offer their congratulations. The winners of the Stellar Awards are chosen by an esteemed panel of judges based on which accomplishments will have the most impact on future space activities and that meet the criteria of recognizing "heroes of the space program."

STELLAR AWARDS EVALUATION PANEL

Michael Coats
RNASA Photo

MICHAEL COATS is a member of the RNASA Board of Advisors and is serving his fifth year on the Stellar Award Evaluation panel. The former astronaut and former NASA Johnson Space Center Director received the 2012 National Space Trophy. Coats received his B.S. degree from the Naval Academy in 1968 and went on to earn his pilot's wings the very next year. He flew 315 combat missions in Southeast Asia from the USS Kitty Hawk from 1970 to 1972. Following test pilot training in 1974, he was project officer and test pilot for A-7 aircraft until selection as a flight instructor at the U.S. Naval Test Pilot School in 1976. He was selected as an astronaut in 1978 and piloted STS 41D in 1984, the maiden flight of Discovery. He went on to command STS-29 and STS-39. Between 1991 and 2005, Coats worked for Loral Space Information Systems, Lockheed Martin Missiles and Space and Lockheed Martin Space Systems. He was the Director of JSC from 2005 until 2012. Under his leadership, JSC implemented over 80 partnerships and hosted summits and job fairs to help displaced workers. To help NASA attract and retain future leaders, Coats instituted the Program Project Management Development, the Space Systems Engineering Development, and the Project Leadership programs. He was inducted into the Astronaut Hall of Fame in 2007. He is now the proud full-time "Pops" to three adorable and perfect granddaughters.

David Thompson
Orbital Photo

DAVID THOMPSON is a member of the RNASA Board of Advisors who is serving his second year on the Stellar Award Evaluation panel. He was the recipient of the 2019 National Space Trophy. Thompson began his four-decade long career as a young engineer at NASA's Marshall Space Flight Center in 1978. In the 1980's he and two Harvard Business School classmates started Orbital Sciences Corp., a startup that focused on the development of space systems for commercial, military and scientific customers. In order to develop a more diversified space and defense systems company with a broader product line, Orbital merged with Alliant Techsystems in 2014, forming Orbital ATK. In 2018, the

company once again joined with a new partner, Northrop Grumman to form Northrop's Innovation Systems business sector. Thompson's business strategy has led his company to Fortune 500 status, reaching more than $5 billion in annual revenue and employing nearly 15,000 people in 2018. He is an Honorary Fellow of the American Institute of Aeronautics and Astronautics (AIAA), a member of the U.S. National Academy of Engineering, and the International Academy of Astronautics. He was recently elected as Chairman of the Board of Trustees at the California Institute of Technology.

Dr. Sandra Magnus
NASA Photo

Dr. SANDRA MAGNUS is a member of the RNASA Board of Advisors serving her second year on the Stellar Award Evaluation panel. Magnus received a bachelor of science in physics and a master of science in electrical engineering from the Missouri University of Science and Technology and a Ph.D. in engineering from the School of Materials Science and Engineering at Georgia Institute of Technology in 1996. Magnus was selected for the Astronaut Corp in 1996 and is a veteran of three space flights, including STS-135, the space shuttles final flight. She served as flight engineer for Expedition 18 when she spent four months aboard the ISS. She went on to serve as Exploration Systems Mission Directorate, Deputy Chief of the Astronaut Office, and Deputy Director for Engineering under the Secretary of Defense for Research and Engineering. She retired from the government in 2020. Currently, Dr. Magnus is an independent Aerospace consultant and part time Professor of the Practice at Georgia Tech. Dr. Magnus is a recipient of the NASA Space Flight Medal and the NASA Exceptional Service Medal.

Dr. Charles Elachi
NASA Photo

Dr. CHARLES ELACHI is a member of the RNASA Board of Advisors serving his first year on the Stellar Award Evaluation panel. Elachi was born in Lebanon in 1947. He earned a Bachelor of Science in Physics from University of Grenoble, France in 1968, the Diplôme d'Ingénieur in Engineering from the Polytechnic Institute, Grenoble in 1968, and the Master of Science and Ph.D. degrees in electrical sciences from the California Institute of Technology, Pasadena in 1969 and 1971. He also holds a Master of Science degree in Geology from the University of California, Los Angeles and a Master of Business Administration from the University of Southern California. Joining JPL in 1970, he led the science team for the Shuttle Imaging Radar A, Shuttle Imaging Radar C and Shuttle Imaging Radar C/X-SAR and Shuttle Radar Topography missions flown on NASA's Space Shuttles during the 1980s and 1990s. In 1988, Dr. Elachi was named to JPL's Executive Council as the director for the Laboratory's Office of Space Science and Instruments. In May 2001, Dr. Elachi was named Director of JPL, beginning 15 years of leadership of the Laboratory. During his tenure, 31 spacecraft and major instruments have been launched on missions in solar system and Mars exploration, Earth science and space-based astronomy. JPL's missions in solar system exploration during this time included Genesis, the MIRO instrument on the European Space Agency's Rosetta orbiter, Deep Impact, Dawn, Diviner, JUNO and Grail, Mars Exploration Rovers Spirit, Opportunity, and Curiosity, and many others. In addition to his JPL role, Dr. Elachi has served as Vice President of the California Institute of Technology and is a member of the UCLA Sciences Board of Visitors. Dr. Elachi and his wife, Valerie Gifford, have two daughters, Joanna and Lauren. He enjoys skiing, reading and traveling.

— EARLY CAREER —

ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT

Abraham D. Chavez of NASA Johnson Space Center - Exceptional technical leadership in quality for the Exploration Extravehicular Mobility Unit.

Maj. Brent Danner of United States Space Force - Exceptional commitment to building a great team and overcoming obstacles to mission success.

Nicholas V. Derzee of Collins Aerospace - Exceptional engineering contributions impacting multiple human spaceflight programs.

Jamil E. Fares of Northrop Grumman - Outstanding fault management engineering, including development of the advanced thermal control assembly sequencing and assessing launch sequencing timing and faults that could impact mission success.

David D. Frish of Collins Aerospace - Innovative technical contributions to the development of Automated Testing Capabilities for Space Flight Electronic Controllers.

Chris Grau of NASA Goddard Space Flight Center - Outstanding leadership of the Exploration and Space Communications' finances, balancing numerous responsibilities while keeping a motivated staff.

Zachary R. Grunder of Lockheed Martin - Technical excellence as the Orion Propulsion Crew and Service Module Responsible Subsystem Engineer.

Capt. Cameron R. Igawa of United States Space Force - Outstanding achievement in establishing DoD's first ever Threat Table Top exercise by meeting the benchmark for all SSC programs and verification of combat survivability in the space environment.

Dr. Daniel J. Kim of NASA Johnson Space Center - Outstanding technical contributions in the field of non-metallic materials for characterization of polymeric spacecraft windows and novel approaches to lightweight and robust spacesuit structures.

Kyle J. Kreiter of Aerojet Rocketdyne - Outstanding achievement and leadership in development and production acceptance testing of the RL10 upper stage rocket engine for ULA and NASA customers.

2019 Stellar Award Winners – Early Career - L to R: Mark Vande Hei (presenting), Samuel Anderson, Peter Carow, Dr. William Q. Walker, Capt. Sean M. Frederick, Ebony J. Bowens, Kathleen S. Bonner, Dr. Joseph Shoer, Cassie Wong, Dr. Shannon Walker (presenting). Not pictured: Capt. Andrew R. Hilton (RNASA Photo, 2019)

Nathan J. LeVay of KBR - Exceptional leadership in operation and troubleshooting of the ISS Robotics On-Board Trainer (ROBoT).

Javier Lopez-Perez of ARES Corporation - Substantial contributions in the development and readiness of Exploration Ground Systems in preparation for the Artemis 1 mission.

Courtney E. Mario of Draper Laboratory - Exceptional technical knowledge in developing autonomous vision navigation systems, dedication, and collaborative skills enabling the successful OSIRIS-REx sample collection maneuver.

Maj. Seth A. Martin of United States Space Force - Outstanding contributions and advancements in military space leading to successful operations and delivery of GPS to billions of users worldwide.

Rachael McKee of Lockheed Martin - Exceptional technical development of Lockheed Martin's Commercial Civil Space Programs advancing deep-space exploration capabilities.

Robert Montgomery of NASA Goddard Space Flight Center - Exceptional service in dedication to establishing the Mars Sample Return Mission and NASA's next steps to explore Mars.

Nathaniel H. Perkins of Aerojet Rocketdyne - Outstanding design and leadership contributions to the RS-25 Nozzle team, including significant hardware support and design improvements.

Travis Ramp of United Launch Alliance - Instrumental contributions to ensure a successful, on-time and accurate launch of NASA's Lucy mission as ULA's mission manager.

Matthew Richmond of Northrop Grumman - Exceptional leadership of multiple Cygnus missions from assembly to integration, test, and launch campaigns.

Jorge Rivera of GeoControl Systems - JETS - Outstanding contributions to application-specific avionics and electronics development to assist in astronaut safety on the ISS.

Timothy E. Sauerhoefer of Collins Aerospace - Exceptional manufacturing engineering performance and commitment to safety and operational excellence on the phase change heat exchanger and CO2 removal system for the Orion spacecraft.

Abigail E. Sherriff of Barrios Technology - Continuous exceptional leadership in developing and implementing systems and data integration solutions for the successful operation and improvement of human spaceflight initiatives.

Teresa M. Spinelli of Northrop Grumman - Outstanding mission operations expertise and team technical expertise on several subsystems within the Cygnus Commercial Resupply Services vehicle supporting the ISS.

Brenton S. Taft of Air Force Research Laboratory - Outstanding contributions to developing new spacecraft thermal technologies and capabilities.

Rachel Vogler of Northrop Grumman - Outstanding leadership as a highly productive and trusted member of the Commercial Resupply Services systems engineering team.

— MID CAREER —

ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT

Erica M. Abrahamson of Collins Aerospace - Outstanding contributions to the nation in advancing space science and technology for the benefit of all humankind.

Rachel A. Barry of Barrios Technology - Exceptional creativity, strategic thinking, and influential leadership while communicating the ISS science message across a wide spectrum of media platforms to the world.

Cassondra Bigini of Aerojet Rocketdyne - Tireless efforts, innovative thinking, leadership, and strong teaming skills leading to significant improvements in the RL10 upper stage rocket engine and to our country's ability to launch on time.

Guillaume Brousseau of Collins Aerospace - Sustained leadership, performance and commitment to the safety and operational excellence of human space exploration.

Paul M. Brower of Northrop Grumman - Outstanding leadership in human spaceflight, including successful operations of the Cygnus spacecraft for ISS Commercial Resupply Services and the operations development of the Habitation and Logistics Outpost (HALO) module to Artemis Gateway.

Colin Campbell of NASA Johnson Space Center - Outstanding contributions to portable life support systems for human spaceflight.

Daimon Clarett of Aerojet Rocketdyne - Outstanding leadership of the EUS field and launch support team integrating the RL10 engine with the SLS vehicle.

Katherine L. Coens of United States Space Force - Exceptional contributions in acquiring space systems resulting in agility and rapid capability expansion.

2019 Stellar Award Winners – Mid Career - L to R: Dr. Shannon Walker (presenting), Timothy J. Lindsey, Dr. Edward B. Bierhaus, Laura A. Shaw, Timothy P. Pepe, Matthew T. Jakubek, Mark Vande Hei (presenting). Not pictured: Marc A. Gibson (RNASA Photo, 2019)

Anthony J. Cook of The Boeing Company - Outstanding technical leadership on the ISS Commercial Crew Vehicle Emergency Breathing Air Assembly project and multiple Environmental Control and Life Support trade studies.

Aaron P. Decker of NASA Johnson Space Center - Exceptional development and implementation of the Supplier Quality Excellence Partnership for the Orion Program.

Christoper C. Delnero of Lockheed Martin - Exceptional technical leadership and innovation architecting and delivering Thermal Control and Life Support Systems for Human Spaceflight beyond low Earth orbit.

Jennifer Deuling of United Launch Alliance - Masterful navigation of the Landsat 9 launch campaign, including integration of multiple secondary payloads which included a demonstration CubeSat dispenser.

Breeann Edris of Lockheed Martin - Exceptional technical leadership of Lockheed Martin's Commercial Civil Space Program.

Sean M. Fuller of NASA Johnson Space Center - Exemplary leadership negotiating the Memorandums of Understanding with Gateway's International Partners paving the way for globally demonstrating technological advancements on the Gateway.

Susan Hite of NASA Goddard Space Flight Center - Superior leadership enabling cargo launches to the ISS and new science payloads.

Coke C. Keppler of Leidos - Outstanding leadership managing the critical CASA Project to a very aggressive schedule for Crew safety and habitability.

Dr. Han Kim of Leidos - Excellence in innovation of virtual fit assessment of the next generation spacesuit.

Igor S. Kofman of KBR - Outstanding leadership in skillfully navigating challenges to ensure Human Research Program research success.

Ana L. Lopez of NASA Johnson Space Center - Sustained excellence and ground-breaking achievements in NASA human space flight communications operations, avionics and software, and space station research.

Mary E. McCabe of NASA Johnson Space Center - Extraordinary impact on critical systems and the engineering community in Human Systems Integration at the Johnson Space Center as a leader, mentor, and role model.

Dr. John C. Melcher of NASA Johnson Space Center - Outstanding leadership and technical excellence for the Commercial Crew Program in the human rating certification of the SpaceX Dragon propulsion system.

Michael E. Misiora of KBR - Proven leadership to the Mission Control Center (MCC), the Astronaut Office, and human space flight programs, and service to his local community.

Lt. Col. Darren Ng of United States Space Force – Service as a true "unsung hero" – ensuring mission success by operating behind the scenes and as a rare triple threat: deep technical, contractual, and teaming skills necessary to solve the toughest problems.

Niraj R. Patel of The Boeing Company - Outstanding leadership on the ISS Roll Out Solar Array (iROSA) project.

Matthew W. Ritsko of NASA Goddard Space Flight Center - Exceptional service in supporting the Artemis Program's Standing Review Board (SRB) as the Programmatic Analysis Champion.

Dereck Robinson of NASA Goddard Space Flight Center - Superior earned value management support to the NASA community, including independent analysis for Orion.

Brian P. Rodrigue of NASA Johnson Space Center - Outstanding leadership and exemplary performance in project management of Orion's Environmental Control and Life Support Systems government-furnished equipment.

Chad Schaeffer of NASA Kennedy Space Center - Outstanding technical leadership instrumental in the success of the Boeing and SpaceX software verification strategies for the Commercial Crew Program.

Thereza Shanklin of KBR - Outstanding contributions to advancements in process control and continuous improvement critical to the transition from government to commercial contract operations at KBR.

Dr. Michael J. Starks of Air Force Research Laboratory - Outstanding contributions in developing high impact space environment capabilities that protect spacecraft from their environments.

David C. Thoerig of J&P Technologies - Exceptional Gateway Integrated Hazard Analysis expertise addressing significant safety and mission assurance issues with an External Vehicular Robotics criticality assessment, and providing rapid responses to challenging requests such as the Caution & Warning communication assessment.

Daniel Treachler of Northrop Grumman - Outstanding technical and programmatic leadership of NASA's Habitation and Logistics Outpost (HALO) under development at Northrop Grumman.

Karen M. Waltzer of The Boeing Company - Outstanding leadership of the ISS Avionics and Software Data Integration Team, providing updated command and telemetry capabilities in support of U. S. Crewed vehicle integration critical to mission success.

Crystal Weaver of ARES Corporation - Exemplary innovation and dedication as the Orion Multi-Purpose Crew Vehicle (MPCV) Program Earned Value Management specialist and Risk Manager for the MPCV Program Planning & Control Office.

— LATE CAREER —

ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT

David S. Beadle of KBR - Exemplary software engineer providing superior technical performance and exceptional dedication in providing highly successful software architecture design, development, deployment, and operational support of software application and tools for use by the ISS onboard crew.

Ken Bocam of Northrop Grumman - Outstanding leadership of the Gateway Co-Manifested Vehicle, forging a cooperative and effective multi-organizational team.

Kenneth Bollweg of NASA Johnson Space Center - Outstanding leadership, technical expertise, mission support and perseverance for the AMS repair mission.

Vince Elliot of NASA Goddard Space Flight Center - Superior leadership of the Lucy project to maintain commitments through COVID-19 challenges.

Matthew M. Gietzel of Lockheed Martin - Exemplary technical leadership of the Orion Environmental Controls and Life Support Systems for NASA's Artemis Missions.

Bonnie Hattersley of Aerospace Corp - Exemplary space systems expertise ensuring that our most vital national security space capabilities are delivered successfully.

Judith C. Hayes of NASA Johnson Space Center - Outstanding contributions and leadership of human spaceflight physiology and performance.

David R. Hinchman of KBR - Outstanding team leadership and employee development in the Mechanisms, Maintenance, and Crew Systems branch.

Dr. Danhong Huang of Air Force Research Laboratory - Exceptional contributions to the understanding of optical response and electron transport properties of quantum devices for space imager technologies.

Leonard Lacasse of Collins Aerospace - Outstanding leadership and project management drive for over 35 years.

Kimberly A. Matthews of Aerojet Rocketdyne - Outstanding accomplishments in product definition creation and establishing of enterprise product definition standards at Aerojet Rocketdyne.

2019 Stellar Award Winners – Late Career - L to R: Mark Vande Hei (presenting), Federico Merheb, William A. Johns, Don R. Wilbanks, Dr. Tushar K. Ghosh, Gary F. Stewart, Brian Sutter, Stanley A. Bouslog, Shannon Walker (presenting). Not pictured: Dr. Louis Ghosn, William D. Manha (RNASA Photo, 2019)

Robert J. Menrad of NASA Goddard Space Flight Center - Exemplary leadership, dedication, and vision that directly contributes to the continued success of numerous NASA missions and fosters the country's growth as a leader in space technology.

Ann F. Paulissen of NASA Johnson Space Center - Outstanding service to NASA which has led to Agency process improvement, increased efficiencies, and cost savings.

Mark Riedel of ARES Corporation - Instrumental support in the development and implementation of modifications to NASA's integration efforts supporting the Japan Aerospace Exploration Agency's (JAXA) H3 Exploration Transfer Vehicle (HTV-X) cargo vehicle and the Axiom Commercial Segment to the ISS.

Robert Rossato of Collins Aerospace - Career dedication to enabling human spaceflight on the Extravehicular Mobility Unit Program.

Alan K. Ruter of KBR - Exceptional career service supporting the delivery of hundreds of hardware items that play a critical role in keeping our flight crews safe and healthy.

Kenneth D. Ryan of Northrop Grumman - Profound expertise, insightful mentorship, and proven design solutions that have become the backbone for the avionics architectures of several Northrop Grumman commercial and human spaceflight spacecraft.

Mahmoud A. Sanjak of Jacobs - Outstanding commitment to safety, technical excellence and mission success in development of NASA avionic systems.

Mark Schaefbauer of Barrios Technology - Exemplary service to JSC and setting the standards for softgoods development for manned spaceflight and exploration programs.

Thomas Schaefer of ARES Corporation - Outstanding contributions as an Element Operations Manager at Kennedy Space Center responsible for processing Artemis I Space Launch System Flight Hardware from receipt through launch.

Charles Schmitzer of Aerojet Rocketdyne - Outstanding leadership and unrelenting drive to achieve 100% Mission Success.

Joseph S. Stich of NASA Kennedy Space Center - Exceptional leadership of the Commercial Crew Program leading to the highly successful SpaceX Demo-2, Crew-1, and Crew-2 missions to the ISS, restoring crewed launch capability from U.S. soil.

Dan A. Strauss of CACI - Critical spacecraft flight software and simulation support to NASA Human Spaceflight for over 33 years.

Christopher S. Strong of CACI - Exceptional career contributing to human spaceflight as an expert in flight software technology and spacecraft systems with outstanding technical ability to identify and correct potential loss of crew and vehicle hazards.

Jason R. Sturgis of SAIC - Outstanding development of a statistical simulation tool to provide more accurate estimates and evaluations of crew risk during landing and recovery, and successfully applying the tool to improve safety of the Orion crew module.

Richard A. Swaim of The Boeing Company - Career excellence in design, integration, technical problem solving and consultation for the ISS and other aerospace programs.

Karl A. Wefers of Aerojet Rocketdyne - Excellence in development and fielding of Human Space and Exploration Power Systems for 36 years.

Chip Woods of Lockheed Martin - Successful development of an innovative program-level affordability approach across the Orion Program that resulted in well over $100 million in cost savings and avoidance.

Mark A. Zaffetti of Collins Aerospace - Lifetime of outstanding mechanical design contributions to Collins CSSS life support and thermal management hardware.

— STELLAR TEAM —

ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT

45th Weather Squadron Human Spaceflight Support Weather Team of United States Space Force - Exceptional spaceflight weather support integral to the safe launch and return of United States astronauts in addition to pioneering spacecraft recovery operations under NASA Project Artemis.

Advanced Thermal Control Assembly Team of Northrop Grumman - Successful design, development, manufacturing, and implementation of an innovative, safe, and effective method to reduce the heat exposure to cargo and payloads on the Cygnus spacecraft and allow for increased crew time flexibility for the ISS.

Boeing Company Genes in Space Team of The Boeing Company - Outstanding ingenuity resulting in increased molecular biology analysis capability on the ISS to promote DNA science, genetics, and biotechnology.

Capabilities Insertion Team of United States Space Force - Pioneering development of cutting-edge techniques and procedures for safely adding new capabilities to satellite vehicles late in production.

Commercial Resupply Services Cargo Flexibility Team of Northrop Grumman - Successful development of the ability to load cargo bound for the ISS within 24 hours prior to launch.

Common Berthing Mechanism Acceptance Test Team of The Boeing Company - Superior performance in conducting CBM flight acceptance testing to the multiple vehicles that configure and resupply the ISS.

Demonstrations and Science Experiments (DSX) Team of Air Force Research Laboratory - Successful demonstration of several new space technologies and capabilities on a space experiment for the National Defense Strategy.

Enterprise Engineering and Integration Team of United States Space Force - Outstanding engineering acumen in the development and fielding of classified strategic and tactical payloads for a $7.3 billion Secretary of Defense-directed satellite communications program.

2019 Stellar Award Winners – Team - L to R: Dr. Shannon Walker (presenting), Tommy Barron (METTS SLS Core Stage Structural Test Article Instrumentation Installation Team of Aerie Aerospace), Matthew Jakubek (CST-100 Starliner Crew Module Reaction Control System (CM RCS) Thruster Development Team of Aerojet Rocketdyne), Michael Bradley (Aerojet Rocketdyne AR22 10X10 Test Team), Unidentified team member, Mark Hancock (AR-22 Engine Integrated Test Team of NASA Stennis Space Center), Stuart Spath (Lockheed Martin InSight Launch & Landing Team), Jeffrey Coots (Boeing SLS Engine Section Test Article Team), Brian Richard (Lockheed Martin Orion European Service Module Integration & Delivery Team), Mark Vande Hei (presenting) (RNASA Photo, 2019)

ESPAStar Team of Northrop Grumman - Successful establishment of a new Space Vehicle Bus Product Line.

Extra Vehicular Activity (EVA) Battery Operations Terminal (EBOT) Team of Oceaneering Space Systems - Outstanding achievement in and dedication to final development, certification, acceptance, and delivery of the EBOT charging system to ISS.

Houston Support Group Multi-Purpose Logistics Module Troubleshooting Team of NASA Johnson Space Center - Successful leadership in diagnosing a Multi-Purpose Laboratory Module catastrophic hazard, and technical integration efforts leading to a successful MLM docking in the face of adversity.

Hubble Side Swap Anomaly Team of Lockheed Martin - Extraordinary efforts in side-swapping and recovering science operations on the 31-year-old Hubble Space Telescope, enabling continued operations for further scientific discovery.

Innovation and Prototype Division of United States Space Force - Successful advancement of the Multi-Mission Satellite Operations Center Ground System Enterprise to the Experimental Prototype Command and Control system.

ISS Mission Evaluation Room Managers of The Boeing Company - Excellence in leading ISS real-time sustaining engineering operations.

ISS Reboost Team of Northrop Grumman - Successful development of U.S.-provided maneuver services to counteract gradual atmospheric drag on the ISS.

ISS Oxygenator Pump Failure Team of Collins Aerospace - Outstanding contribution to the nation in advancing space science and technology for the benefit of all humankind.

Lockheed Martin Artemis III Orion Crew Module Weld Team of Lockheed Martin - Exceptional dedication and commitment to overcome numerous challenges and ensure timely completion of the Artemis III Orion Crew Module Pressure Vessel.

MCC Trajectory Subsystem (MTS) Software Team of KBR - Successful development of the next generation of Flight Dynamics software tools at Johnson Space Center, providing cross-cutting Human Spaceflight Program support.

NASA's Exploration Systems Development (ESD) Cross-Program Systems Integration (CSI) Baseline Integration Integrated Task Team (BI-ITT) of NASA Marshall Space Flight Center - Exceptional contributions in advancing the technical integration of the Artemis Missions through unique tool development, process improvement, and technical engagement.

Paragon Brine Processor Assembly (BPA) Team of Paragon Space Development Corporation - Successful development of the Paragon BPA to increase water recoveries up to 98%, enabling long duration human exploration missions beyond low earth orbit.

Quality Engineering Non-Destructive Testing Team of United Launch Alliance - Successful development and implementation of more than 100 processes to automate testing and ensure Vulcan Centaur is ready to support mission success.

ROBOVision Development Team of NASA Johnson Space Center - Pioneering development of ROBOVision, an innovative advanced technology tool for autonomous robotics grasp alignment.

Space Launch Facility Improvement and Modernization Team of United States Space Force - Successful modernization of critical national security space launch infrastructure to further assured access to space for commercial, civil, USSF, and DOD partners while enhancing the USSF's Spaceport of the Future concept.

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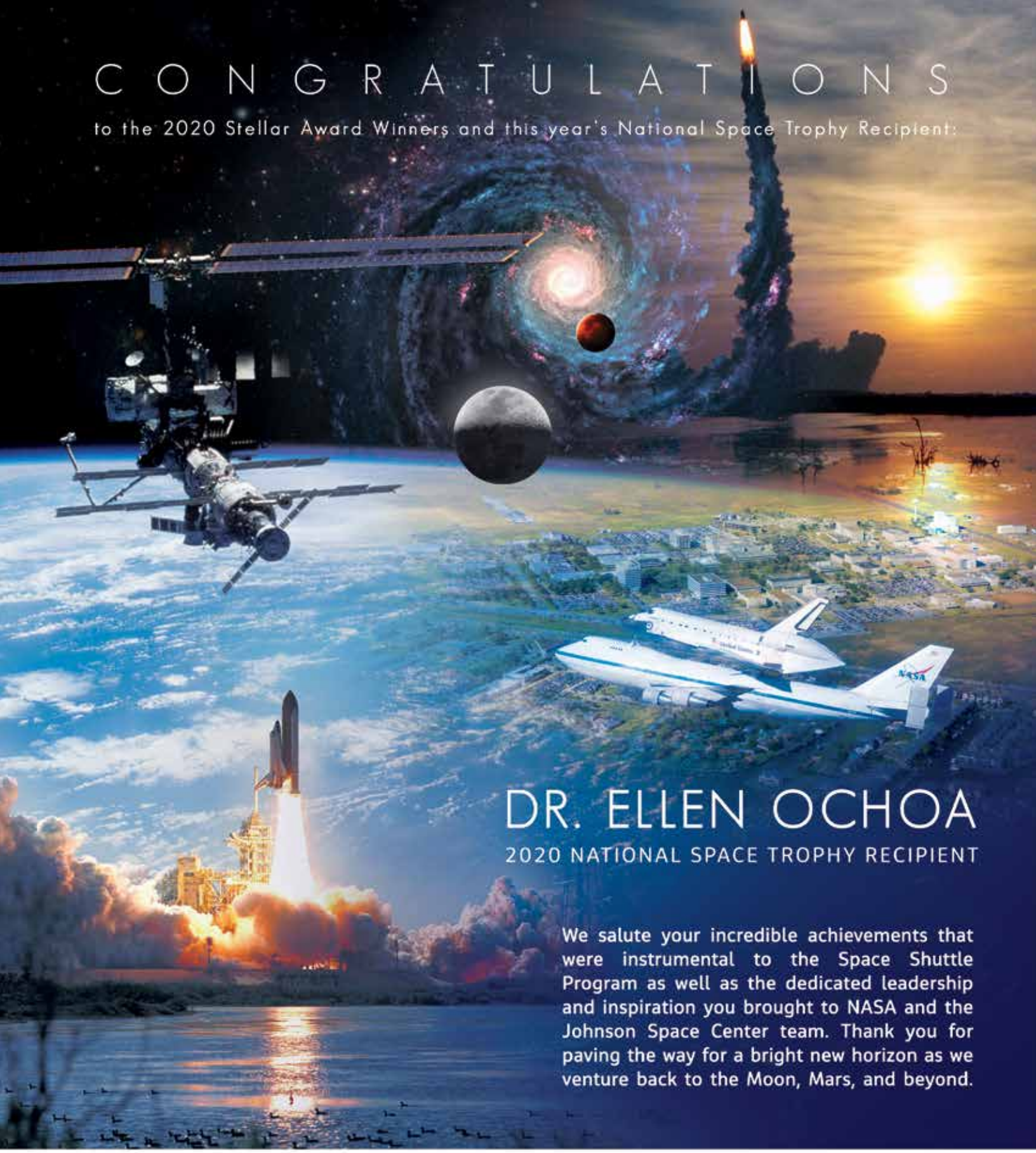

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