

RESEARCHER

ASTRONAUT

PHYSICIST

SPACE PIONEER

For his invaluable contributions to science and space exploration, Boeing is proud to congratulate Dr. John M. Grunsfeld on receiving the 2017 National Space Trophy.





DR. JOHN GRUNSFELD

NATIONAL SPACE TROPHY RECI<mark>PIENT</mark>



Dr. John Grunsfeld NASA Photo

The RNASA Foundation Dr. John Grunsfeld, NASA Associate Administrator of the Science Mission Directorate, as the 2017 National Space Trophy recipient.

Nominated

Dr. Grunsfeld was nominated for the award by Dr.

Matt Mountain, President of the Association of Universities for Research in Astronomy. Dr. Mountain remarked, "One of Grunsfeld's unique strengths is his ability to demonstrate the relevance and excitement of spaceflight by bringing together the scientific community, NASA's international partners, Congress, the Administration, with NASA's Science, Human Spaceflight, Technology and Aeronautics programs. His unique experience as an astronaut, a teacher, scientist, and senior leader at NASA has enabled him to make unique contributions to all of NASA's activities."

Early Life and Education

Born in Chicago, Illinois, Dr. Grunsfeld earned his bachelor of science degree in physics from the Massachusetts Institute of Technology in 1980. He went on to earn a master of science degree in 1984 and a doctor of philosophy degree in physics in 1988 from the University of Chicago. After serving as a Senior Research Fellow at the California Institute of Technology from 1989-1992, he was selected by NASA to join the astronaut training program in March of 1992. He was initially assigned to the Astronaut Office Mission Development Branch and led the development of portable computer use in space. His efforts resulted in hardware and software which were used on the Space Shuttle to enhance mission success, and computers and software which are used by crew on International Space Station.

is pleased to recognize Dr. Grunsfeld's first flight was aboard STS-67 in March 1995. He and the crew were tasked with conducting round-the-clock observations of the ultraviolet universe using three telescopes in the payload bay.

> Grunsfeld served as flight engineer during his second flight on STS-81 which docked with Russia's space station



Astronaut John Grunsfeld performs work on the **Hubble Space Telescope** as the first of five STS-125 spacewalks. **NASA Photo**

Mir and exchanged U.S. astronauts living aboard the International Space Station. It was during this mission that John had a little fun with Tom and Ray Magliozzi, hosts of Car Talk, NPR's call in radio show. During his flight home aboard the Space Shuttle Atlantis, John called in and described some trouble he was experiencing with his "government vehicle" ex-

plaining that it had excellent acceleration but runs extremely rough for 2 minutes, quieter for six and a half, at which point the engine stalls. The hosts didn't take long to figure out that the caller was John Grunsfeld.

Grunsfeld flew on three more shuttle missions to service the Hubble Space Telescope. The first was on



Grunsfeld in 1981 at the Kagoshima Space Center in Japan supporting the launch of the Japanese **Hinotori solar physics** satellite. **Grunsfeld Photo**

DR. JOHN GRUNSFELD

2017 NATIONAL SPACE TROPHY RECIPIENT



NASA Administrator Charles Bolden (left); Goddard Space Flight Center **Director Chris Scolese**; and John Grunsfeld, stand in front of the four Magnetospheric Multiscale (MMS) spacecraft stacked in a clean room at NASA's **Goddard Space Flight** Center.

 NASA's Goddard Space Flight Center/Bill Hrybyk STS-103 in December 1999 Associate Administrat Branch and led the development spacewalk training courses for astronauts that are still used today.

STS-109 came next in PBS NOVA show "Deadly March 2002 where John served as Payload Commander. It was after this in North America. He and mission that he spent time companion, Dr. Howard serving as NASA's chief scientist in Washington D.C. the effects of body temhelping develop President Bush's Vision for Space He was forced to turn back

Exploration following the tragic loss of Space Shuttle Columbia in 2003. His final mission was aboard STS-125 in a NASA team to the top of May of 2009. This time, he served as the lead spacewalker Denali in 2004. John also on a mission to perform a major renovation on Hubble which had been in orbit for 19 years. All told, Grunsfeld has logged five missions, eight space walks, and 58 days married and has two chilin space. He was inducted into the Astronaut Hall of Fame dren. in 2015.

The Hubble Repairman

contributions have extended well beyond his missions to space. In 2010, John left NASA to take on a role as Deputy Director of the Space Telescope Science Institute in Baltimore. It was here that Dr. Grunsfeld helped prepare the institute for their joint efforts with NASA to develop the James Webb Telescope which will be launched in 2018.

in which he performed After returning to NASA in 2012 as Associate Administratwo space walks. Upon tor for Science, Grunsfeld managed more than 100 mishis return home from this sions including the Curiosity Mars rover landing, the new successful mission, John Horizons Pluto flyby and the Deep Space Climate Obserwas asked to lead the Ex- vatory. These and dozens of other projects have laid the travehicular Activity (EVA) foundation to understand how our own planet is changing while inspiring a whole new generation of explorers.

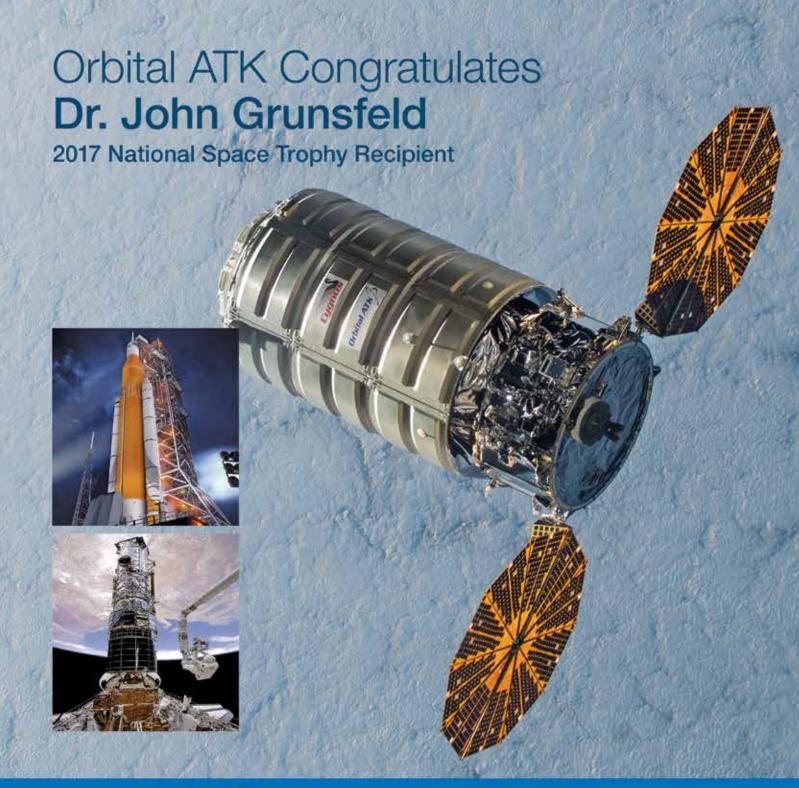
Beyond space, Dr. Grunsfeld enjoys mountaineering. In

2000 he appeared on the Ascent" when he climbed Denali, the highest peak Donner were researching perature at high altitudes. at 17,200 feet but later led enjoys flying, sailing, bicycling, and music. He is



Grunsfeld on an ice sheet outside of McMurdo Station in Antarctica in 2015. This trip supported the **National Science Founda**tion and NASA research. **Grunsfeld Photo**

Grunsfeld said, "I am honored and humbled to be awarded this distinguished recognition for my contributions to Affectionately known as the "Hubble Repairman", John's science and space exploration. The quest to unravel the mysteries of the Universe and to extend human presence beyond planet Earth has propelled me for most of my life, in part inspired by previous trophy winners. I have been successful only as a member of the extraordinary teams with whom I've shared this journey of discovery, and I regard this honor as a team award."



The Partner You Can Count On™

We also congratulate all Stellar Award nominees and winners for their dedication and excellence in the advancement of America's space goals.

OrbitalATK.com





DR. MICHAEL GRIFFIN

NATIONAL SPACE TROPHY PRESENTER



Dr. Michael Griffin **NASA Photo**

pleased to welcome the Presenter.

Griffin was born in 1949 in Aberdeen, Maryland and holds seven academ-

BA in Physics from Johns Hopkins University in 1971, and his Ph.D. in Aerospace Engineering from the University of Maryland in 1977. He also holds five Master's Degrees in Applied Physics, Aerospace Science, Electrical Engineering, Civil Engineering, and Business Administration.

Griffin was appointed as NASA Administrator by President George W. Bush in 2005 following the tragic loss of the Space Shuttle Columbia in 2003. During his tenure as Administrator, he facilitated the return to flight of the Space Shuttle, and the completion of the International Space Station. Through his work on Constellation, a presidentially mandated program, he oversaw the development of the which will ultimately take astronauts to Mars.

and that our nation should lead the world in pioneering the space frontier. In a statement to the Washington Post in 2005, he said "The goal isn't just scientific exploration... It's also about extending the range of human habitation out from Earth into the Solar System... In the long run a single-planet species will not survive. If we humans want to survive for hundreds of thousands or millions of years, we must ultimately populate other planets ... we must

The RNASA Foundation is colonize the Solar System, and one day go beyond."

2009 National Space Tro- Griffin left NASA in January 2009, taking the King-McDonphy winner, former NASA ald Chair in Aerospace Engineering at the University of Administrator Michael Alabama in Huntsville. In 2012, he accepted the position Griffin, as this year's NST of Chairman and CEO of the Schafer Corporation, where he remains today.

Mike has served in numerous other roles earlier in his career, including Space Department Head at the Johns Hopkins Applied Physics Laboratory, President and Chief Opic degrees. He earned his erating Officer of In-Q-Tel, Inc., CEO of Orbital's Magellan Systems division, and as both Chief Engineer and Associate Administrator for Exploration at NASA. He has also been an adjunct professor at the University of Maryland, Johns Hopkins University, and George Washington University, and has co-authored the textbook "Space Vehicle Design" with James French.

Griffin is a Registered Professional Engineer in Maryland and California, a member of the National Academy of Engineering and the International Academy of Astronautics, an Honorary Fellow of AIAA (2006), a Fellow of the American Astronautical Society (2002), and a Senior Member of the Institute of Electrical and Electronic Engineers. In Ares 1 and Ares V boosters and the Orion crew capsule, addition to the 2009 National Space Trophy, Griffin is the recipient of many other honors, including the National Space Club's 2009 Goddard Trophy, the DoD Distinguished Mike has been a lifelong advocate of space exploration, Public Service Medal, and the Time Magazine 100 Most Influential People of 2008.

> Going beyond the achievements of a long and very fortunate career, Mike is proudest of his marriage to the former Rebecca Lee Hann, whom he met in Houston in the early '90s, and of his four children. His hobbies include golf, flying his Bonanza, scuba diving, amateur radio, and trying to keep up with Becky while skiing.





OB NAVIAS

2017 SPACE COMMUNICATOR AWARD.



Rob Navias NASA Photo

2017 Space Communica-Public Affairs Office (PAO) and Television Opera-

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 ticularly poignant. Upon Air Force Base in California. While in San Francisco with AP, Navias also covered such stories as the Patricia Hearst kidnapping and trial from 1974-1976, and the People's Temple mass suicides in Guyana and the City Hall assassinations of Mayor George Moscone and Supervisor Harvey Milk in 1978, as well as the Voyager missions from the Jet Propulsion Laboratory in Pasadena, Calif.

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.

His career with NASA began in 1993. He was recruited to work in the Office of Public Affairs at the Johnson Space

The RNASA Foundation Center where he not only managed the flow of informais pleased to present the tion via radio and TV but he did so with unmatched clarity.

tor Award to Rob Navias, In addition to coverage of the space shuttle, Navias has Johnson Space Center been the lead for Public Affairs operations involving Russian launch and landing operations of U.S. astronauts and Mission Commentator international partner crewmembers for the past two deand lead for the Program cades. 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.

> Hadfield wrote, "Rob has spent countless hours studying and preparing for dozens of shuttle launches, landings, space walks, and in flight interviews so he can then properly report to his listeners. His iconic voice has offered informed, well-researched facts for decades. Known for his eloquent style, Navias was often the lead commentator

for shuttle missions but it was Atlantis' final mission in 2011 that was par-Atlantis' landing Navias said: "having fired the imagination of a generation, a ship like no other, its place in history secured, the Space Shuttle pulls into port for the last time - its voyage at an

When asked to reflect on his career and what spurred his interest in space, Navias recounts receiving a transistor radio from his father in

Navias moderates a press briefing at the **Johnson Space Center** during the STS-118 space shuttle mission in 2007. **NASA Photo**

in 1961. Using that radio, he listened intently when Yuri Gagarin was the first person to be launched into space and again when Alan Shepard flew aboard Freedom 7. The space program had hooked another young American!



MEMORY OF JOHN GLENN



John Glenn NASA Photo

would like to recognize John Glenn (1921-2016) for his contributions to the American aerospace program.

hero when he became the first American to orbit the Earth aboard Friendship 7 on February 20, 1962.

John was born July 18, 1921, in Cambridge, Ohio. He graduated from the Naval Aviation Cadet Program in 1942 and was commissioned by the Marine Corp in 1943. He flew 59 combat missions in the Marshall Islands on a F4-U fighter of 95.

The RNASA Foundation during World War II and flew 63 mission in Korea. He was selected as a Mercury astronaut in April 1959.

> Glenn won an Ohio Senate seat in 1974 and was re-elected for three more terms. He served proudly until 1998 where he championed efforts to improve the safety and environmental impact of the nation's nuclear weapons facilities.

Glenn became an instant In 1998 at the age of 77, Glenn became the oldest astronaut to venture into space when he flew aboard the shuttle Discovery. During the nine day mission, he conducted studies related to the aging process.

> John served on the RNASA board of advisors from 2000-2016 and cast his vote in the selection of more than a dozen NST recipients. John and his high school sweetheart married in 1943. They have two children and two grandchildren. He passed away on December 8, 2016 at the age





JEFF CARR

SPACE COMMUNICATOR AWARD PRESENTER



Jeffrey Carr Photo courtesy of Jeff Carr

RNASA Advisor and Griffin Communications Group President Jeffrey E. Carr is presenting the 2017 Space Communicator Award to Rob Navias on behalf of the Foundation.

Raised in the shadow of the Johnson Space Center as the son of an Apollo/ Skylab astronaut, Carr graduated with a BS in Ra-

dio-Television- Film from the University of Texas in 1982. His teaching assistant in ASTRONOMY 301 was a young Neil DeGrasse Tyson, a previous RNASA Space Communicator Award winner. Following graduation, he was hired as a technical director and soon became Manager of Mission Operations for Media Services Corporation, overseeing a staff of producers and technical directors in the planning and live programming of space shuttle mission coverage for NASA television.

Carr joined NASA in 1987, and served in a number of key roles in the Public Affairs Office at Johnson Space Center (JSC), including press liaison and information specialist for Flight Crew and Mission Operations. He served in Mission Control as a flight commentator for more than 40 space shuttle flights. He led the only NASA public affairs team ever given the honor of hanging the mission plaque— after the record-breaking 13-day flight of the U.S. microgravity laboratory on STS-50 in 1992.

From 1992 to 1994, Carr was chief of the News and Information Branch at JSC, supervising a staff of public affairs specialists and support contractors in the planning and conduct of news and information-media activities on local, regional, national and international levels. It was during this time that Carr recruited and added this year's winner, Rob Navias, to the JSC PAO team.

Carr served on temporary assignment in 1993 as special assistant to NASA administrator Dan Goldin. He provided critical transition support and insights into key issues and

RNASA Advisor and Griffin activities for the Agency during the early months of the Communications Group Clinton administration. His duties included speechwriting, President Jeffrey E. Carr is media relations and White House liaison support.

Communicator Award to As acting director of Public Affairs at JSC in 1995 and 1996,
Rob Navias on behalf of Carr oversaw the development and implementation of educational programs, media production and broadcasting, media services, news and information services, visitor programs, and exhibits and public appearances.

Carr joined United Space Alliance in 1996. As Director of Communications and Public Relations, he became a member of the senior leadership team, reporting directly to the President and CEO. His responsibilities included media, community, and customer relations; state and local government relations; Space Flight Awareness, Awards and Recognition, marketing communications and advertising.

Believing that the United States should remain a leader in space, science and technology, Carr was one of the founders and driving forces behind the Coalition for Space Exploration in 2004, a collaboration of space industry businesses and advocacy groups that continues today, educating and informing the public and the Congress on the value and benefits of space exploration.

He left USA to join Griffin Communications Group in 2010 as Vice President, Aerospace, where he led the development of an international aerospace practice, working with clients such as Virgin Galactic, Orbital ATK and Sierra Nevada Corporation on media relations, PR and communications programs. As president, he works with founder and CEO Gwen Griffin in overseeing the day to day operations and development of the business.

Carr has more than 34 years in aerospace communications and public relations. He is the holder of two Telly Awards for national achievement in media production. He received the NASA Exceptional Achievement Medal and was a member of the NASA/Industry Communications Team presented the 2004 RNASA Space Communicator Award.

Carr and his wife Mengo reside in Houston, and have a son and daughter who also live in Houston.

MEI Technologies, Inc.

Congratulates

Dr. John Grunsfeld

NASA Associate Administrator of the Science Mission Directorate

2017 National Space Trophy Recipient

MEI Technologies, Inc. (MEIT) also commends all of the Stellar Award nominees on their dedication and contributions to our nation's space program.





Thank You & Congratulations Dr. Grunsfeld



NILES O'BRIEN



Miles O'Brien O'Brien Photo

He is the science correspondent for PBS NewsHour, a producer and director for the PBS science documentary series

Nation series. He is also an aviation analyst for CNN.

Georgetown University and began his broadcasting career in 1982 in Washington, DC. O'Brien was a reporter and anchor at TV stations in St. Joseph, Missouri; Albany, New York; Tampa and Boston. He joined CNN in Atlanta as the zone of Western Africa. science correspondent in 1992.

While with CNN, O'Brien anchored programs including avid sportsman and en-Science and Technology Week, Headline News Primetime, and CNN American Morning. He has covered all aspects of Since his accident, he has space including reports on the Hubble Space Telescope, ridden numerous "centhe shuttle dockings at Mir, the first space station launch from Kazakhstan, John Glenn's return to space, landings run two marathons, and on Mars, the winning of the Ansari X-Prize, and the tragic recently finished a triathloss of Columbia and its crew, a story he told to the world lon. in a 16-hour marathon of live coverage.

After years of negotiations, NASA had an agreement with Washington, DC, he is the proud father of two children. CNN that, if not for the disaster, would have made O'Brien the first journalist to fly on a space shuttle. O'Brien followed the investigation and successful return to flight. He be graduating form Davidson College in North Carolina in left CNN in December 2008.

Miles O'Brien is a veteran A third-generation pilot with an instrument rating, O'Brien independent journalist owned a Cirrus SR-22 that he often flew to assignments. who focuses on science, He is often called upon to explain the world of aviation technology and aero- to a mass audience and has reported extensively on civil aviation issues and crash investigations-most notably the disappearance of Malaysia Airlines flight MH370.

> O'Brien has won numerous awards over the years, including five Emmys, a CINE Golden Eagle, and a Peabody and DuPont to name a few.

NOVA, a correspondent for the PBS documentary series In 2014 a heavy equipment case fell on Miles's forearm FRONTLINE, and the National Science Foundation Science while he was on assignment. He developed acute compartment syndrome, which necessitated the emergency amputation of his left arm above the elbow. Despite the Born and raised in Detroit, Michigan, he studied history at loss of his arm, Miles continues to report on the latest scientific field research from all corners of the globe, wheth-

er it be the melting Denali Glacier or the Ebola hot Not one to let anything hold him back, Miles is an joys physical challenges. tury rides" on his bicycle,



Miles O'Brien O'Brien Photo

Currently residing in

His son, a recent graduate of The US Naval Academy is an Ensign based in San Diego, CA, and his daughter will May 2016.





DR. KUELL LINDGREN STELLAR AWARDS PRESENTER



Dr. Kjell Lindgren **NASA Photo**

awards presenter.

pei, Taiwan but spent most of his early years in England. He earned his

bachelor's degree in biology from the United States Air Force Academy in 1995 where he was also a member of the "Wings of Blue" parachuting team. He served as an instructor, a jumpmaster and a member of the academy's to receive his masters of science in cardiovascular physiology from Colorado State University in 1996. While there, he conducted cardiovascular research in the Space Physiology Lab at NASA Ames Research Center. Next, he earned a doctorate of medicine from the University of Colorado in the Soyuz on December 2002 and completed a three-year residency in emergency medicine at Hennepin County Medical Center in Minne- in space. apolis, Minnesota. He moved to Texas in 2005 where he completed a two-year residency in aerospace medicine at Lindgren has been honthe University of Texas Medical Branch in Galveston.

Lindgren began working for Johnson Space Center in 2007 and was quickly selected to support the International Space Station (ISS) training and operations program in Russia. He was serving as Deputy Crew Surgeon for STS-130 when he was selected as a member of the 20th Astrout class in 2009.

The RNASA Foundation Following two-year training, Lindgren was selected as is pleased to welcome the Spacecraft Communicator lead for Expedition 30. He Dr. Kjell was then assigned to Expeditions 44/45 as a flight engi-Lindgren as a stellar neer and mission specialist. Accompanied by a Russian cosmonaut and a Japanese astronaut, Lindgren launched aboard a Soyuz Rocket from the Baikonur Cosmodrome Lindgren was born in Tai- in Kazakhstan to the ISS, July 23, 2015. During his time aboard the ISS, Lindgren performed more than a hundred scientific experiments including human physiology research and combustion physics. He conducted two space walks with Expedition 45 Commander Scott Kelly in which they installed a thermal blanket on the Alpha-Magnetic Spectrometer and performed maintenance of the external thermal control system. While in orbit, Lindgren, who was intercollegiate national championship team. He went on an Eagle Scout himself, talked to a group of international

scouts via radio during the 23rd World Scout Jamboree in Japan. He returned to Earth aboard 11 after logging 141 days



NASA Photo

Dr. Kjell Lindgren corrals fresh fruit aboard the ISS.

ored with over a dozen awards including the

NASA Distinguished Service Medal, the NASA Space Flight Medal and the U.S. Air Force Achievement Medal.

Lindgren is married and has three children. His hobbies include running, SCUBA diving, reading, movies, photography, amateur astronomy, and science fiction.

DR. KATHLEEN RUBINS

STELLAR AWARDS PRESENTER



Dr. Kathleen Rubins **NASA Photo**

The RNASA Foundation is pleased to welcome Astronaut Dr. Kathleen "Kate" Rubins as a stellar awards presenter.

Rubins was born in Farmington, Connecticut, and raised in Napa, California. She earned a Bachelor of

Science degree in Molecular Biology from the University of California, San Diego in 1999 and a Ph.D. in Cancer Biology in 2005 from Stanford University Medical School Biochemistry Department and Microbiology and Immunology Department. Her undergraduate studies focused on HIV-1 integration in the Infectious Diseases Laboratory at the Salk Institute for Biological Studies. She went on to help develop the first model of smallpox infection with the U.S. Army Medical Research Institute of Infectious Diseases and the Centers for Disease Control and Prevention.

Rubins served as a Principal investigator for the White- and Astronautics (AIAA). head Institute for Biomedical Research in Cambridge, Massachusetts where she directed 14 researchers studying viral diseases affecting Central and West Africa. She later traveled to the Democratic Republic of Congo to conduct research and supervise study sites.

Rubins was selected by NASA in July 2009 as a member of the 20th astronaut class. On July 7, 2016, Rubins was chosen for Expeditions 48/49 and flew aboard the first Space Station (ISS). The crew conducted more than 275 flying, scuba diving and reading.

scientific experiments including research on molecular biology, human physiology and combustion physics. Rubins was also the first person to sequence DNA in space and grew heart cells in cell cultures.

Rubins performed two space walks during her time aboard the ISS. First, she and Jeff Williams installed the first International Docking Adapter, and during the second, they performed maintenance on the thermal control system and installed high definition cameras. She and Williams also captured the SpaceX commercial resupply spacecraft and sent scientific samples back to Earth. Rubins logged 115 days in space.

Rubins is a member of many organizations including the

American Association for the Advancement of Science (AAA), the American Society for Virology (ASV), and the American Institute of Aeronautics



Dr. Kathleen Rubins aboard the ISS. **NASA Photo**

She has also been honored with several distinguished awards including **Popular Science's Brilliant** Ten, the National Science

Foundation Predoctoral Fellowship and the UCSD Emerging Leader of the Year.

test flight of the new Soyuz spacecraft to the International Rubins is married and enjoys running, cycling, swimming,

RNASA FOUNDATION



All ROWS L TO R: SECOND ROW: Gary Johnson, Bill Taylor (Vice Chairman), Irene Chan, Rodolfo González (Chairman) Jennifer Devolites, Delia Stephens, Bob Wren FIRST ROW: Floyd Bennett, Frank Perez, L. Jean Walker (Secretary), Geoff Atwater (Treasurer), Mary Alys Cherry, Darryl Smith (SCR President) **NOT PICTURED**: Shelley Baccus, Jeff Carr, Stephanie Castillo, Ann Charles, Lindsey Cousins, Steven Fredrickson, Bill Geissler, Susan Gomez, Jacinda Green, Philip Harris, Marcus Havican, Mike Hernandez, Tim Kropp, Joseph Mayer, Veronica McGregor, Jayant Ramakrishnan, Branelle Rodriguez, Celina Rogers, Duane Ross, Lori Wheaton

The Rotary National Award for Space Achievement (RNA- club. One third of the directors are elected each June for SA) Foundation was founded in 1985 to organize and coordinate an annual event to recognize outstanding achievements for one year while president. in space and create greater public awareness of the benefits of space exploration. Each year, the Foundation presents the includes the directors, officers, corporate representatives, National Space Trophy (NST) to an outstanding American (see event coordinators, and dedicated Rotarians who help orprevious winners on page 17) who has made major contribu- ganize and produce a quality and memorable evening for tions to our nation's space program.

Nominations are solicited each fall from leaders in government, industry, and professional organizations. The winner is ed to space-related programs. Following the 2016 event, selected by a vote of the RNASA's Board of Advisors (page 35) that includes current and former NASA center directors, lead- Program which provides thousands of students the opporers of aerospace corporations, space journalists, and previous tunity to experience the exciting work being done at Johnaward recipients.

Since 1989, the RNASA Foundation has also recognized the heroes of the space program with Stellar Awards (pages and support it receives from the aerospace industry, edu-22-32) for individual and team achievements.

The RNASA Foundation is a nonprofit organization governed by a Board of Directors, a majority of whom must be achievements in space exploration. members in good standing of the Space Center Rotary (SCR)

three-year terms except for the SCR president who serves

The RNASA Committee (pictured) serves the board and our sponsors (page 19) and guests.

Excess funds remaining after event expenses are donatproceeds were donated to the NASA Aerospace Scholars son Space Center.

The RNASA Foundation is grateful for the enthusiasm cational organizations, NASA, and the Department of Defense that allows the continued recognition of outstanding

PREVIOUS NST RECIPIENTS

2017 ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT



1987 - Maxime Faget

1988 - Don Fugua

1989 - Richard Truly

1990 - Lew Allen

1991 - Aaron Cohen 1992 - Norman R. Augustine

1993 - Thomas Stafford

1994 - Edward C. Aldridge

1995 - Daniel Goldin

1996 - Robert L. Crippen

1997 - George W.S. Abbey

1998 - George H.W. Bush

1999 - Christopher C. Kraft

2000 - John W. Young

2001 - Tommy Holloway

2002 - George E. Mueller

2003 - Roy S. Estess

2004 - Neil A. Armstrong

2005 - Glynn S. Lunney

2006 - Eileen Collins

2007 - Eugene F. Kranz

2008 - Eugene Cernan

2009 - Michael D. Griffin 2010 - Bill Gerstenmaier 2011 - Kevin P. Chilton 2012 - Michael L. Coats

2013 - Kay Bailey Hutchison

2014 - Charles F. Bolden 2015 - Robert D. Cabana

2016 - Charles Elachi



PROGRAM

31ST ANNUAL SPACE AWARDS GALA

Friday, April 28, 2017 Houston Hyatt Regency Imperial Ballroom

6:00 RECEPTION

7:00 WELCOME

Rodolfo González, Chairman, RNASA Foundation

PRESENTATION OF THE COLORS

Clear Brook High School, Clear Creek ISD Cadets from 3rd Battalion JROTC

Dominique Silva, Jourdan Spence, Melissa Hernandez, Toby McCreary, escorted by Brent Elrod, Major, US Army (Ret.)

NATIONAL ANTHEM

Members of the High School for the Performing and Visual Arts Girls Chorus

INVOCATION

Rev. Madella Williams, Senior Pastor, Taylor Lake Christian Church

DINNER

8:15

2016 YEAR-IN-REVIEW FILM

Space City Films

EMCEE

Miles O'Brien, Former CNN correspondent

PRESENTATION OF SPACE COMMUNICATOR AWARD TO ROB NAVIAS

Jeff Carr, Griffin Communications Group President

PRESENTATION OF STELLAR AWARDS

Kjell Lindgren and Kathleen Rubins, NASA Astronauts

PRESENTATION OF NATIONAL SPACE TROPHY TO DR. JOHN GRUNSFELD

Michael Griffin, former NASA Administrator

PRESENTATION OF THE OMEGA WATCH

Thomas Stafford

RECOGNITION OF SPONSORS AND CLOSING



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2017 ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT

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Live Event and Multimedia Production by Space City

Program book content by Lindsey Cousins

Art & Design by Lindsey Cousins

Cover art by Pat Rawlings

Printing by Printing for Less

OMEGA WATCH

OMEGA Watches

JOHN GRUNSFELD'S PORTRAIT

TASC

STELLAR AWARD TROPHIES

Orbital ATK

STELLAR AWARD PENS

Fisher Space Pens

STELLAR AWARD EVALUATION PANEL

Arnold D. Aldrich

Capt. Michael Coats

Col. Eileen Collins

Dr. Glynn S. Lunney

SPECIAL THANKS

Jeffrey Carr

Irene Chan

Craig Insurance

Mark E. Hollis, CPA



STELLAR AWARDS PROGRAM 2017 ROTARY NATIONAL AWARD FOR SPACE ACHIEVE MENT

Each fall, the RNASA Foundation solicits Stellar Award Rockwell's Satellite Systems Division in California. After a nominations of space industry workers and teams deserv- tour at Rockwell Space Systems Division, he returned to ing of special recognition. This year, 115 individual and 34 Houston in 1989 to lead Rockwell's Space Operations Co. team nominations were received in four categories (see that became part of United Space Alliance (USA) in 1995. citations on pages 22-34).

All nominees are treated to an insiders' tour of Johnson Space Center (JSC) and an awards luncheon with a distinguished speaker. This year's speaker was Jeffrey Williams (see profile on page 21). 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. The winners are announced at the banquet where they receive a distinctive engraved marble trophy generously sponsored this year by Orbital ATK.

STELLAR AWARDS EVALUATION PANEL

Dr. Glynn S. Lunney, is a member of the RNASA Board of Advisors who is serving his fifteenth year on the Stellar Awards Evaluation Panel. He was the 2005 National Space Trophy winner.

Lunney graduated from the University of Detroit in

1958. He worked at what is now Glenn Research Center in Cleveland, Ohio and transferred to Langley in Virginia in 1958. Lunney joined the Space Task Group in 1959 and moved to Houston in 1962. He was a flight director for Gemini and Apollo and head of the Flight Director's Office starting in 1968. He received an honorary doctorate from the University of Scranton in 1971. In 1972, Lunney became manager of the Apollo-Soyuz Test Proj-



Dr. Glynn S. Lunney RNASA Photo

ect, and manager of the Apollo Spacecraft Office starting in 1973.

Lunney served at NASA Headquarters twice during 1976 and later in 1980, first as deputy associate administrator (AA) for Space Flight, and then as acting AA for Space Transportation Operations. In 1981, he returned to Houston to manage the Space Shuttle Program.

In 1985, Lunney left NASA and became president of

Lunney was VP and program manager of USA's Space Flight Operations Contract until his retirement in 1999.

Arnold D. Aldrich is a member of the RNASA Board of Advisors who is serving his tenth year on the Stellar Award Evaluation pan-

Aldrich joined the Space Task Group at Langley Field in 1959 following graduation from North-eastern University. He held a number of key flight operations management positions during the Mercury, Gemini, and Apollo programs. He served as Skylab deputy program manager; Apollo Space-



Arnold D. Aldrich RNASA Photo

craft Program Office deputy manager during the Apollo Soyuz Test Project; Orbiter Project manager during development of Space Shuttles Discovery and Atlantis; and Space Shuttle Program manager. Following the Challenger accident, Aldrich was appointed director of the National Space Transportation System (Space Shuttle Program) at NASA Headquarters where he led recovery and return-toflight efforts. He then served as AA for Aeronautics and Space Technology and, later, AA for Space Systems Devel-

In 1994, Aldrich left NASA and joined Lockheed Missiles and Space Company in Sunnyvale, California, He was vice president, Commercial Space Business Development and then vice president, Strategic Technology Planning. With the merger of Lockheed and Martin Marietta, he became director of Program Operations at Lockheed Martin's headquarters in Bethesda, Maryland. He retired in 2007 and is now an aerospace consultant. Aldrich has received numerous honors including the Presidential Rank of Distinguished Executive and the NASA Distinguished Service

Colonel Eileen Collins, USAF (Ret.) and former NASA astronaut, STS-63, STS-84, STS-93, and STS-114, is a member of the RNASA Board of Advisors who is serving her third year on the Stellar Awards Evaluation Panel. She was the recipient of the 2006 National Space Trophy and she received the award as NASA's first female Space Shuttle Pilot and Commander.

Collins earned her associate's degree in math/science from Corning Community College in 1976, 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.

She was a T-38 instructor pilot at Vance AFB in Oklahoma, and a

C-141 commander and instructor at Travis AFB in California. From 1986 to 1989, Collins taught math at the USAF Academy in Colorado and was a T-41 instructor. She graduated from the Air Force Test Pilot School at Edwards AFB in 1990 before her selection that year as a pilot astronaut. Business Administation from John-Collins first flight was the first for a woman pilot.

Collins flew on STS-63 Discovery from February 3-11, 1995, STS-84 Atlantis from May 15-24, 1997, STS-93 Columbia from July 23-27, 1999, which was the first Shuttle mission to be commanded by a woman, and STS-114 Discovery from July 26 to August 9, 2005.

Her special honors include the Defense Superior Service Medal, Distinguished Flying Cross, Defense Meritorious Service Medal, Air Force Meritorious Service Medal with one oak leaf cluster, Air Force Commendation Medal with one oak leaf cluster, Armed Forces Expeditionary Medal for service in Grenada (Operation Urgent Fury, October 1983), French Legion of Honor, NASA Outstanding Leadership Medal, NASA Space Flight Medals, Free Spirit Award, and the National Space Trophy.

Michael Coats is a member of the RNASA Board of Advisors who is serving his second 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 served aboard the USS Kitty Hawk in Southeast Asia and then

served as a flight instructor with the A-7E Readiness Training Squadron in California until 1973.

Coats 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.



Col. Eileen **Collins** RNASA Photo

Michael Coats

RNASA Photo

NASA has recognized Coats with honors including the Distinguished Service Medal and the JSC Presidential Rank Award. He was inducted into the Astronaut Hall of Fame in 2007.

STELLAR LUNCHEON SPEAKER

Colonel Jeffrey Williams spoke at the Stellar Award luncheon at the Lakewood Yacht Club earlier today. Williams was born in Wisconsin in 1958. He earned his Bachelor of Science Degree in Applied Science and Engineering from the U.S. Military Academy (USMA) in 1980 and went on to earn four more degrees including an honorary Doctorate of son and Wales University in 2007.



Jeffrey Williams RNASA Photo

He received his commission as a second lieutenant May 1980 and was subsequently selected to work at the Johnson Space Center.

Williams was selected for the NASA Astronaut class in 1996. His spaceflight experience includes four missions. His first flight was aboard Atlantis on STS-101 in 2000 where he served as the flight engineer and lead spacewalker. Williams would serve as Flight Engineer on three more missions including Expeditions 13 (March 2006), 21/22 (September 2009) and 47/48 (March 2016) all of which launched aboard the Russian Soyuz from Kazakhstan. During his 534 days in space, Williams conducted five spacewalks and contributed to hundreds of experiments in biology, biotechnology, physical science and Earth science.

OMEGA WATCH PRESENTER Lt. Gen. THOMAS STAFFORD, USAF

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.



Thomas Stafford RNASA Photo

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 cofounded 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.

The RNASA Foundation wishes to express its gratitude to OMEGA and General Stafford for more than a decade of support to our annual event.



tributions to liquid rocket engine design and development with special emphasis in fluid control subsystems and

Annamarie Askren of Blue Origin - Significant contributions to New Shepard Crew Capsule development which resulted in multiple launches and landings of the same

Daniel N. Campbell of The Boeing Company - Outstanding contributions to the propulsion system design of the **Exploration Upper Stage and successful completion of the** preliminary design review.

Christie L. Cox of NASA Johnson Space Center - Significant contributions to the management and leadership of the ISS Program's budget and strategic flight planning in a dynamic and highly constrained era.

Dwight Decarme of The Boeing Company - Exceptional contributions and leadership in successfully designing and

Michael Ahlmann of Aerojet Rocketdyne - Significant con- qualifying a thermal system that will protect the SLS vehicle during launch and ascent, and for resolving SLS Core Stage hot fire thermal survivability issues during ground system testing.

> Christopher Eby of SpaceX - Outstanding technical contributions and leadership overseeing the Commercial Crew space suit qualification milestone.

> Joey Edgar of Oceaneering Space Systems - Outstanding technical knowledge, unwavering attention to detail and exemplary work ethic in contributing to the development of extravehicular activity spaceflight hardware.

Bryan E. Fanick of the United States Air Force - Superior leadership and significant contributions to national defense by directing a 97-member team in executing test and integration activities for a \$1B SecDef-directed demonstration satellite.

Matthew Feldman of UTC Aerospace Systems - Exemplary spacecraft engineering and project management leader-



2016 Early Career Stellar Award Winners L to R: Rex Walheim (presenting), Kiril Dontchev, Dr. Brien Flewelling, Alan Kim, Sarah Baldwin, Anthony Cook, Stephanie Wilson (presenting). Not Pictured: Cora Traecy (NASA Photo, 2016)

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ship on the Boeing CST-100 Starliner Environmental Control and Life Support System program at UTAS

Christina M. Gosling of NASA Johnson Space Center - Successful leadership of the effort to reduce the flight software and test requirements for Boeing CST-100, including dramatically reducing the automation sequences required for nominal and abort mission scenarios.

David W. Gruntz of Stinger Ghaffarian Technologies, Inc. - Sustained exceptional contributions and outstanding robotics flight control leadership resulting in successful replacement of a failed power control module and installation of the International Docking Adapter on ISS.

Melissa Higgins of Jacobs - Outstanding contributions to Earth Science and to sharing NASA's Earth Science data with educators, students and the public.

Thurmond W. Jackson of the United States Air Force - Outstanding leadership of two Missile Defense Agency Patriot Missile Segment Enhancement national defense test missions and the propulsion program for the Operationally Responsive Space rapid launch mission.

Vaneza Lopez of Aerojet Rocketdyne - Extraordinary focus, dedication and leadership in re-engaging the RS-25 supply chain to support NASA's Space Launch System.

Fitzgerald U. Madu of The Boeing Company - Outstanding leadership of ISS dynamic analyses for the loads and dynamics team and Integrated Docking Assembly project.

Peter A. Masi of Jacobs - Exceptional contributions which enable our continuous presence in low earth orbit aboard the ISS and are shaping our capability to extend human exploration to Mars and beyond.

Sarah M. Matar of The Boeing Company - Effective leadership of strategic sparing assessments to ensure supportability of the ISS.

Kelsey M. Moser of The Boeing Company - Significant contributions to vehicle modeling integration enabling highquality deliveries of key customer products.

Joseph T. Murphy of Lockheed Martin - Outstanding welding process innovations for Orion, resulting in defect-free welds at a faster rate and lower cost.

Jason Oh of the United States Air Force - Outstanding leadership of 33 military, government civilians and contractor personnel to develop and build a four stage, space rocket for the Operationally Responsive Space Office Space Test Program-5 satellite mission.

Justin Pucci of Aerojet Rocketdyne - Outstanding le adership and technical excellence in the development and production of hall current thruster propulsion sys-

Jake Rohrig of UTC Aerospace Systems - Consistent commitment to customer success through engineering excellence, natural creativity, innate leadership, and empathetic communication.

Jason Shapiro of Aerojet Rocketdyne - Outstanding leadership in testing of large rockets from the Antares AJ-26 to the Orion jettison motor.

Chelsea E. Shepherd of Stinger Ghaffarian Technologies, Inc. - Outstanding dedication, leadership, and support to assembly and maintenance operations for the ISS.

Verbon Blake Sparks of The Boeing Company - Outstanding structural engineering analysis contributions to Ares and SLS, including leadership responsibilities for SLS LH2 cryogenic tank design analysis and development.

Breanne K. Sutton of Orbital ATK - Outstanding leade rship of the Orion ACM analysis team resulting in a successful CDR, and community service through AIAA leadership and STEM activities.

Alma Stephanie Tapia of NASA Johnson Space Center -Outstanding leadership in metallurgical engineering, contributing to agency programs and projects, including EVA suits, tools, and devices.

Sean Tully of Orbital ATK - Exceptional systems engineering and leadership skills contributing to the success of several Cygnus missions to the ISS.

Russell Vela of U.S. Air Force Research Laboratory - Exceptional technical expertise in solving significant radar engineering challenges to support space vehicle design and major ground based radio telescope upgrades.

Chelsea Walker of Orbital ATK - Outstanding work et hic, talent, dedication and results-driven focus enabling timely resolution of a high-risk SLS booster motor con-

Sarah L. Wallace of NASA Johnson Space Center - Successful championing of a game-changing biomolecule sequencer that was successfully demonstrated as a scientific tool on the ISS.



and the James Webb Space Telescope in promoting the advancement of space exploration.

Ronald K. Baccus of NASA Johnson Space Center - Outstanding leadership of the Orion heatshield block bond verification effort.

Steven Balistreri of The Boeing Company - Outstanding leadership, teamwork, and technical excellence demonstrated by contributions to NASA's ISS Program.

Matthew Barber of Aerojet Rocketdyne - Outstanding contributions to liquid propulsion component design and development with special emphasis in fluid control subsystems and components for human spaceflight.

Richard R. Beckman of the United States Air Force - Exceptional program management and technical and program-

Kenneth J. Anderle of Jacobs - Exemplary service to JSC matic problem solving leading to numerous successful classified military operations and GPS capabilities for a billion users worldwide.

> Jeffrey C. Bemis of Orbital ATK - Outstanding leadership of the Orion Launch Abort Attitude Control Motor in reconstituting the team and guiding it though a successful critical design review.

Jannette R. Bolden of NASA Johnson Space Center - Outstanding procurement knowledge, leadership and ingenuity in the Space Shuttle Program contract expedited close-

Mirka Caro of SAIC - Outstanding safety expertise provided to the ISS Program focused on Internal Partner provided hardware and vehicles.



2016 Middle Career Stellar Award Winners L to R: Stephanie Wilson (presenting), Paul Connolly, Lorraine Prokop, Anthony DiCello, Bruce Sommer, Leslie Robertson, Shelia Sharp, Rex Walheim (presenting). Not Pictured: Judith Blackwell-Thompson, Lt. Col. Christian Elenbaum (NASA Photo, 2016)

Kim D. Couch of The Boeing Company - Comprehensive approach to affordability and innovation, leading to multimillion dollar cost and schedule reductions across SLS stage teams that have contributed to keeping the nation's launch vehicle program viable and affordable without sacrificing safety or technical integrity.

Stacie R. Cox of NASA Johnson Space Center - Exemplary leadership of critical extravehicular mobility unit failure resolutions, resulting in maintaining EVA capability aboard

Jeffery Darmetko of UTC Aerospace Systems - Exceptional technical skill and leadership in engineering for the development of systems and components for Human Space and **Unmanned Space.**

Matthew Dawson of Aerojet Rocketdyne - Outstanding achievements in support of monopropellant thrusters and continued support of interplanetary missions.

Trevor DeVault of The Boeing Company - Outstanding effort leading the development of a third International Docking Adapter for ISS, resulting in completion of key milestones.

Brandon N. Dick of The Boeing Company - Outstanding technical leadership of the design, development, qualification, and production of the soft capture system for the **NASA Docking System.**

George K. Gafka of NASA Johnson Space Center - Sustained superior performance in the assurance of crew safety for multiple agency programs.

Jason L. Harvey of CACI - Significant Innovation as the key inventor and developer of the General Use Nodal Network Solver, a NASA simulation and analysis tool used to develop fluid flow network models for real-time ISS training and deep-space exploration engineering analysis and proof-ofconcept models.

Eameal C. Holstien of NASA Johnson Space Center - Exceptional contributions of budgetary support to the ISS program, which enabled streamlined, efficient and effective resources management of ISS Program.

Kristi B. Hurt of Aerojet Rocketdyne - Outstanding contributions to the 100% mission success of the RS-68 rocket engine through technical excellence, and innovation in test operations.

Melissa S. Jones of NASA Kennedy Space Center - Outstanding leadership of the Grounds System Development and Operations Program Orion recovery team.

Jaclyn L. Kagey of Stinger Ghaffarian Technologies, Inc. -Sustained technical excellence and unyielding leadership throughout a career in extravehicular activity operations, resulting in numerous successful spacewalks and contingency preparedness for ISS.

Gary Lai of Blue Origin - Outstanding leadership of the New Shepard technical team, which performed five launches and landings of the same booster in one year.

Tim Lohse of The Boeing Company - Outstanding technical resolution and leadership contributions on the SLS, contributing innovative approaches to mitigate schedule risk, reduce the cost of production, and to optimize system functionality by minimizing unnecessary growth in design requirements.

Adele M. Luta of Schafer Corporation - Pioneering contributions to DARPA's space defense testbed program as a cognitive neuroscientist.

Robert A. Mase of NASA Jet Propulsion Laboratory - Outstanding management of exceptionally successful projects exploring the solar system.

Carolyn Overmyer of Lockheed Martin - Technical excellence in managing the design and development of the Orion service module.

William A. Pohlchuck of The Boeing Company - Exceptional leadership and technical excellence in the groundbreaking development of the Delay -Disruption Tolerant Network communications protocol for the ISS.

Jeremy Redden of Orbital ATK - Significant contributions to SLS, both as technical expert and ambassador for the next generation of human spaceflight.

Satish C. Reddy of Jacobs - Outstanding leadership and contributions in structural analysis to Human Spaceflight.

Joseph P. Sadeski of Jacobs - Outstanding leadership and contributions to the development, delivery, operation, and return of cold stowage hardware and science payloads to the ISS.

Michael L. Sarafin of NASA Headquarters - Exceptional dedication, technical ability, and leadership as Flight Director for Space Shuttle, ISS, and Exploration missions and as EM-1 Mission Manager for Exploration Systems Development.



CACI congratulates Dr. John Grunsfeld, Winner of the National Space Trophy, for His Extraordinary Contribution to NASA and the Space Program.

We salute all the 2017 Stellar Award nominees and winners for their dedication to the mission. We understand that integrity and a spirit of innovation are at the core of success, and we join the space community in thanking RNASA for honoring these heroes of the American space program.

CACI has a legacy of supporting the NASA human space flight mission since 1969.



Charles V. Seal III of Aerojet Rocketdyne - Invaluable contributions towards the 100% mission success of the Delta IV vehicle and RS-68 rocket engine through leadership, mentorship, technical excellence, and innovation.

Cheryl R. Slyter of Jacobs - Outstanding leadership and technical expertise in robotics, establishing a foundation for leadership at NASA for years to come.

Steven W. Spencer of Aerojet Rocketdyne - Successful completion of life demonstration testing of the reaction control thruster for Boeing's commercial crew vehicle.

William Spetch of NASA Johnson Space Center - Exceptional leadership in advancing US commercial space transportation in low Earth orbit.

Brad Sutter of Jacobs - Outstanding contributions to further the understanding of the nature and evolution of the surface of Mars.

Lawrence A. Thomas of UTC Aerospace Systems - Sustained leadership, performance and commitment to the safety and operational excellence of human spaceflight extravehicular activity.

John C. Tutt of Jacobs - Outstanding contributions in engineering and project management to human spaceflight-

Kenneth Utley of The Boeing Company - Sustained superior performance in electrical wiring design and wiring installation for human spaceflight applications.

Monica L. Visinsky of Oceaneering Space Systems - Superb technical knowledge, unfaltering attention to detail and exemplary work ethic contributing to the development and operation of extravehicular activity robotic spaceflight hardware.

Wendy Whittenberg-Ferrell of The Boeing Company - Exceptional leadership and technical excellence as a software requirements developer for the ISS program.

Susan R. Winnitoy of CACI - Excellence in developing and executing dynamic qualification tests using NASA's Six-Degree-of-Freedom Dynamic Test System that led to flight certification for the NASA Docking System.

David G. York of The Boeing Company - Outstanding leadership of the ISS Loads and Dynamics team in providing safe and effective operation of the ISS.

James Scott Young of Leidos - Outstanding leadership in developing a process that speeds up and automates the authorization and development of simple hardware items for the ISS Program.



LATE CAREER

STELLAR NOMINEES

Mark G. Adams of Stinger Ghaffarian Technologies, Inc.
- Exceptional career-long dedication to the safety of the crews who fly America's human tended spacecraft.

Jay E. Bennett of NASA Johnson Space Center - Outstanding dedication and technical excellence in metallic materials, metal processes, and fasteners for the human spaceflight programs within NASA and the aerospace community.

Charles E. Bosomworth of UTC Aerospace Systems - Distinguished career in space life support, logistics engineering, and project management spanning Shuttle, ISS, and Orion.

Stephen Broussard of UTC Aerospace Systems - Sustained leadership, performance and commitment to the safety and operational excellence of human spaceflight extravehicular activity.

Laura A. Brozowski of Aerojet Rocketdyne - Technical excellence and exceptional leadership in the advancement of rocket engine turbomachinery.

David G. Butler of The Boeing Company - Outstanding contributions to SLS systems engineering, integration and test, leading to recurring SLS milestone successes and significant cost efficiencies.

Dale Cloud of UTC Aerospace Systems - Exceptional technical skill and leadership in engineering for the development of systems and components for both human and unmanned space.

Karen J. Dahlman of Jacobs - Distinguished contracts career that enhanced the effectiveness of NASA's manned and unmanned programs through procurement approach-



2016 Late Career Stellar Award Winners L to R: Rex Walheim (presenting), George Dickey Arndt, Laurence Price, Dr. Geoffrey Landis, Mark Craig, Robert Brazier, Stephanie Wilson (presenting) (NASA Photo, 2016)

es maximizing innovative project management, acquisition strategies, and requirements definition while achieving the highest quality, efficiency, and compliance.

Alan F. Davis of Aerojet Rocketdyne - Outstanding technical leadership of the RL10 Engine product line ensuring on time product delivery, affordability, and 100% mission success for many critical NASA and DoD payloads.

Jeffrey R. Davis of NASA Johnson Space Center, retired - Exceptional career innovations and collaborative leadership as Director of NASA's Human Health & Performance Directorate, greatly impacting agency strategic goals.

James W. Doten of UTC Aerospace Systems - Sustained leadership, performance and commitment to manufacturing and operational excellence of human spaceflight over a 37- year career.

William J. Edwards of Lockheed Martin - Exceptional design, development and integration of the Orion spacecraft crew and service module subsystems.

Mark G. Elliott of UTC Aerospace Systems - Sustained leadership, performance and commitment to the safety and operational excellence of human spaceflight extravehicular activity.

Daryl Ethington of Jacobs - Outstanding leadership and technical expertise in establishing procedural standards for manned testing in support of human spaceflight.

Mark Ferguson of Orbital ATK - Exceptional technical and program management of the pressurized cargo module of Cygnus.

Thomas H. Freeman of the United States Air Force - Outstanding leadership of 33 military, government civilians and contractor personnel to develop a NASA manned-space flight launch vehicle Abort Test Booster mission, an ORS space launch and the Army Patriot Missile Segment Enhancement national defense test mission.

Kamal S. Ghaffarian of Stinger Ghaffarian Technologies, Inc. - Visionary serial entrepreneur dedicated to creating companies that operate with the highest level of integrity, promote employee well-being, and deliver the best technical solutions to their customers.

Stephen Hobart of Blue Origin - Successful management of all launch vehicle and spacecraft operations for New Shepard's five historic launches and landings.

Stephen Hoffman of SAIC - Significant contributions and advancement of NASA's expertise and capability to plan, design, and assess exploration mission architectures.

James M. Holt of NASA Johnson Space Center - Exceptional leadership to ensure crew safety in the event of a rupture of an interface heat exchanger on ISS.

Paul G. Jermyn of Aerojet Rocketdyne - Invaluable contributions towards the 100% mission success of the Delta IV vehicle and RS-68 rocket engine through leadership, mentorship, technical excellence, and innovation.

Charles Les Johnson of NASA Marshall Space Flight Center - Exceptional contributions fundamental to bringing Near Earth Asteroid Scout from a concept to a reality.

Clark Kingsford of The Boeing Company - Outstanding accomplishments in the leadership, mentorship and development of critical manned spaceflight hardware.

Alfred N. Little of Aerojet Rocketdyne - Outstanding dedication and technical excellence in support of America's space and defense programs.

William D. Manha of Jacobs - Outstanding pressure system safety expertise resulting in career-long contributions to space exploration and space science.

Scott R. McIntyre of The Boeing Company - Exceptional leadership, sustained excellent performance, and dedication to the advancement of human spaceflight programs.

Michael A. Melgares of Jacobs - Exceptional technical and team leadership during an accomplished career from Apollo to Multi-Purpose Crew Vehicle Orion.

Nigel A. Millard of Oceaneering Space Systems - Exceptional engineering and management as senior project manager for the Orion Crew Module uprighting system.

Juan L. Moreno-Gongora of Leidos - Outstanding technical excellence and leadership in development of information technology tools supporting the ISS Program.

Marc D. Rayman of NASA Jet Propulsion Laboratory - Extraordinary and uniquely creative work to explore the solar system and open the frontiers of space to even more ambitious missions to follow.

William H. Schoolmeyer of Jacobs - Exceptional technical and leadership career in computational fluid dynamics, aerodynamics, aerothermodynamics, and vehicle dynamics/performance analysis.

Robert C. Scully of NASA Johnson Space Center - Extraordinary and sustained contributions to the protection of aerospace systems from lightning and electromagnetic interference for all of the human spaceflight programs.

Gregory R. Sherrill of Jacobs - Outstanding career expertise in systems engineering and flight certification contributing significantly to human spaceflight across multiple programs.

William J. Slade of Orbital ATK - Outstanding innovation and leadership in ordnance systems, stage design, and systems design and engineering.

William David Starrett, Jr. of Orbital ATK - Superior technical leadership over the course of the Space Shuttle, Ares and SLS programs, resulting in the success of several first-time booster integration efforts and flight milestones

Milivoje Stefanovic of The Boeing Company - Exceptional performance for 30+ years on NASA SSP, SLS and Boeing Commercial Crew System Programs.

Mark P. Stoecker of UTC Aerospace Systems - Sustained leadership, performance and commitment to the safety and operational excellence of human spaceflight extravehicular activity.

John C. Thesken of NASA Glenn Research Center - Outstanding advancements in NASA's capability to analyze, design, and safely utilize composite overwrapped pressure vessels for space flight applications.

Kenneth O. Todd of NASA Johnson Space Center - Exceptional accomplishments in expertly and successfully leading day-to-day ISS operations.

John B. Vollmer of The Boeing Company - Outstanding dedication and leadership on ISS, supporting NASA's mission to explore space and expand scientific research.

Timothy A. Wade of The Boeing Company - Outstanding contributions to the safety and reliability of human space flight programs, including the SLS, ISS, and Spacehab programs.



STELLAR TEAM STELLAR NOMINEES

Advanced Missile Warning Technologies (AMWT) Team of ment of an advanced, unique remote-sensing space exper- iment payload, novel algorithm tools, and new spectralpolarimetric models for atmospheric optical transmission, as well as exquisite characterization of military optical

Advanced Space Propulsion – In-space Propulsion for Mars Crew and Cargo Mission Architecture Team of Aerojet Rocketdyne - Exceptional team contribution in NTP propulsion heritage, system concept, and mission architecture modeling and analysis capability to support a viable program for SLS/Orion human exploration of Mars and the Solar System.

Aerojet Rocketdyne Additive Manufacturing Team (AMT) U.S. Air Force Research Laboratory - Successful develop- of Aerojet Rocketdyne - Exceptional team effort to improve the NASA Space Launch System affordability through additive manufacturing.

> Antares Return to Flight Team of Orbital ATK - Outstanding teamwork resulting in the successful launch of the upgraded Antares launch vehicle to the ISS.

Arnold Engineering Development Complex Space Chambers Team of the United States Air Force - Outstanding achievement in verification testing of next generation solar panel design for future GEO and deep space systems.



2016 Team Stellar Award Winners L to R: Rex Walheim (presenting), Andrew Zarechnak (OA-4 Return to Flight Team of Orbital ATK), Seth Lacy, Corey Duncan (Automated Navigation and Guidance Experiment for Local Space Program Team), Debbie Sharp (ISS Hardware Recovery Team), Carolyn Gernux (Fan/Pump/Separator Bearing Corrosion Anomaly Resolution Team), Yasmin Ali (Pendulum Team), Janine Cuevas (EFT-1/Orion Aerojet Rocketdyne Propulsion Team), Brian Jones (Orion EM-1 Critical Design Review Team), Stephanie Wilson (presenting) (NASA Photo, 2016)

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Bigelow Expansion Activity Module (BEAM) Team of NASA Johnson Space Center - Successful development and operation of the first human-rated expandable module deployed in space.

Commercial Crew Harmonization Working Group of NASA Headquarters - Exceptional contributions to human spaceflight through successful development of a revised legal regime to enable transportation of government astronauts on commercial space transportation systems.

Compass Team of NASA Glenn Research Center - Exemplary history of innovative and high quality spacecraft and launch vehicle designs for NASA, industry, and other government organizations.

Consolidated Air Force Satellite Control Network (AFSCN) Modifications, Maintenance, and Operations (CAMMO) Source Selection Team of the United States Air Force - Exceptional dedication, hard work, and technical excellence as space acquisition professionals in the application of law, policy, and regulation in support of the Air Force's space mission and best value for taxpayers.

Dawn Flight Team of NASA Jet Propulsion Laboratory -Outstanding achievement exploring some of the last uncharted worlds in the inner solar system in a unique mission that reveals new insights about the dawn of the solar

Delivery of 100 AJ-60 Flight Motors for Atlas V by Aerojet Rocketdyne Team of Aerojet Rocketdyne - Dedication and attention to detail during development, production and flight operations, resulting in 100% mission success in the delivery of 100 flight solid rocket boosters.

European Service Module Structural Test Article (E-STA) Campaign Team of NASA Glenn Research Center - Exceptional contributions to enabling human spaceflight beyond the moon through international collaboration on structural and acoustic testing of a new service module.

Evolved Expendable Launch Vehicle (EELV) Rocket Propulsion System (RPS) Other Transaction Authority (OTA) Team of the United States Air Force - Technical excellence in execution of four OTA agreements to lead urgent efforts to end the United States' reliance on Russian RD-180 engines for National Security Space launches.

Extra Vehicular Activity (EVA) 35 Recovery Team of UTC Aerospace Systems - Outstanding rapid performance to recover EVA capability on ISS after the US EVA 35 water in helmet incident.

Falcon 9 Team of SpaceX - Exceptional history of innovative and high quality spacecraft and launch vehicle designs for NASA, industry, and other government organiza-

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

Global Positioning System (GPS) IIF Team of the United States Air Force - Successful acquisition, development, and delivery of 12 GPS space vehicles to orbit, ensuring gold-standard positioning, navigation, and timing capabilities to over 2.7 million military personnel, one billion civilian users, and 57 Allied nations worldwide.

Global Positioning Systems Operations Support and Sustainment Division of the United States Air Force - Outstanding teamwork in delivering modernization, cybersecurity and electronic warfare improvements for the \$32 billion Global Positioning System ground system and 38satellite constellation.

Houston, Engineering, Logistics, and Operations (HELO) Organization Airlock Cooling Loop Recovery (ALCLR) Processing Team of Stinger Ghaffarian Technologies, Inc. -Outstanding accomplishments in developing the ALCLR processing capability at SGT and supporting the continued development of the ALCLR equipment.

International Docking Adapter Team of The Boeing Company - Outstanding achievement in development of the International Docking Adapter for ISS, culminating with delivery and installation of the first IDA on ISS.

ISS Oxygen Generator Assembly (OGA) Recovery Team of The Boeing Company - Successful resolution of complex and emerging issues resulting from the Oxygen Generator Assembly recovery that threatened ISS oxygen generation capability and potential ISS de-crew or delayed Soyuz launch due to depleted oxygen supplies.

ISS Medical Project (ISSMP) 1-Year Mission (1YM) Team of Leidos - Exceptional leadership in the execution of the One Year Mission and Twins Study on the ISS that resulted in the achievement of key milestones for NASA and the Human Health and Performance Contract.

ISS Materials & Processes Team of NASA Johnson Space Center - Innovative contributions to the ISS Program by streamlining the materials certification process for ISSbound, commercial-off-the-shelf hardware, decreasing toxicity testing fivefold, thereby allowing faster and cheaper access to ISS for researchers while preserving safety.

Magnetospheric MultiScale (MMS) Flight Dynamics Team of a.i. solutions - Successful development and operations of the MMS flight dynamics system, the most challenging formation flying mission ever attempted.

New Shepard Team of Blue Origin - Outstanding accomplishment in performing the first landing of a verticallaunch rocket in history, and then four subsequent launches and landings in 2016.

Next Generation Cygnus Design Team of Orbital ATK - Outstanding technical leadership and teamwork in the design and implementation of the next generation Cygnus Spacecraft, resulting in increased capability, reliability, and science utilization for the ISS.

Orion Launch Abort System (LAS) Attitude Control Motor (ACM) Team of Orbital ATK - Successful completion of critical design review on the world's only human-rated controllable solid after a 4.5 year shutdown, reconstituting a team, and redesigning to fully meet NASA spaceflight requirements.

Orion Reliability Core Probabilistic Risk Assessment Team of Lockheed Martin - Outstanding effort, teamwork, and execution in the creation of the first comprehensive Exploration Mission Probabilistic Risk Assessment model.

RadSat Team of The Boeing Company - Outstanding execution of a small satellite project that provides a full life cycle hardware development opportunity for early career employees.

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Remote Sensing Exploitation Capability Team of the United States Air Force - Exceptional development, demonstration, and transition of responsive remote sensing exploitation and dissemination capabilities for the benefit of the nation.

RSLP NASA Orion Abort Test Launch Vehicle Team of the United States Air Force - Outstanding team accomplishment in developing and building a NASA flight launch vehicle to execute the Orion crew safety system abort test mission.

Saffire Team of NASA Glenn Research Center and Cygnus Saffire Integration and Operations Team of Orbital ATK - Successful development and demonstration of an advanced spacecraft fire safety experiment (Saffire) flown as a Cygnus hosted payload.

Space Launch System Core Stage Tank Cyrogenic Seals Team of The Boeing Company - Successful resolution of SLS Core Stage cryogenic tank seal anomalies to mitigate leakage of liquid hydrogen and preclude a potential hazardous explosive environment, culminating in a successful qualification of the seal design for flight with no impact to design or production.

Space Launch System Systems Engineering, Integration, and Test Mass Properties Team of The Boeing Company - Exceptional contribution and leadership to the affordability and mass risk reduction of the SLS Core Stage through innovative automation and process improvements, resulting in optimized mass-to-orbit solutions.

IN MEMORY OF GENE CERNAN



Gene Cernan NASA Photo

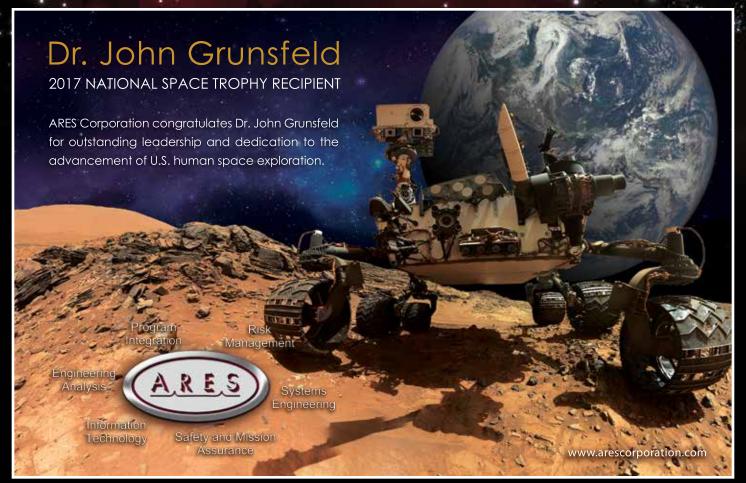
would like to recognize Eugene Cernan (1934to the American aerospace program. Gene was the recipient of the 2008 National Space Trophy.

Cernan received his BS in electrical engineering in 1956 and earned his Navy wings in November of 1957.

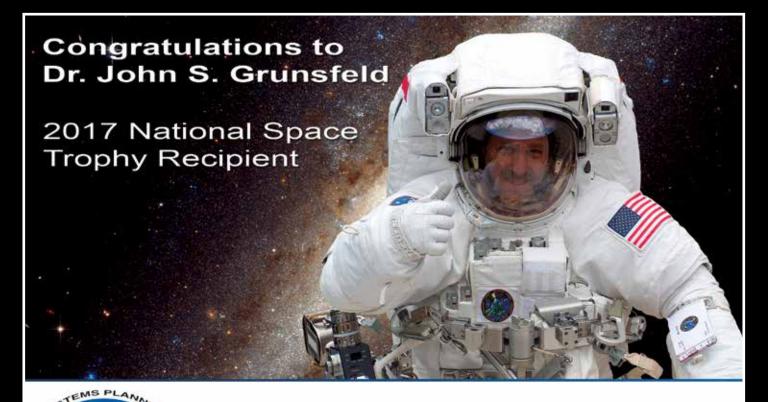
In 1963, he was asked to volunteer for the astronaut en NST recipients. Gene is survived by his three children program. His first mission came on June 3, 1966 aboard Gemini 9. At an altitude of 161 miles, Cernan became the 2017 at the age of 82.

The RNASA Foundation second American to walk in space. Apollo 10 came next on May 18, 1969. Alongside Tom Stafford, Gene steered the lunar module to within nine miles of the lunar surface. 2017) for his contributions In 1972, Cernan commanded Apollo 17, the final flight to to the Moon. A plaque which was signed by the crew and President Nixon reads "Here Man completed his first explorations of the moon. December 1972 AD. May the spirit of peace in which we came be reflected in the lives of all mankind." Cernan left NASA and retired from the Navy in 1976 after logging more than 566 hours in space. His autobiography, The Last Man on the Moon, was published

> Gene served on the RNASA board of advisors from 1998-2016 and cast his vote in the selection of more than a dozand nine grandchildren. He passed away on January 16,







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Safety isn't expensive, it's priceless

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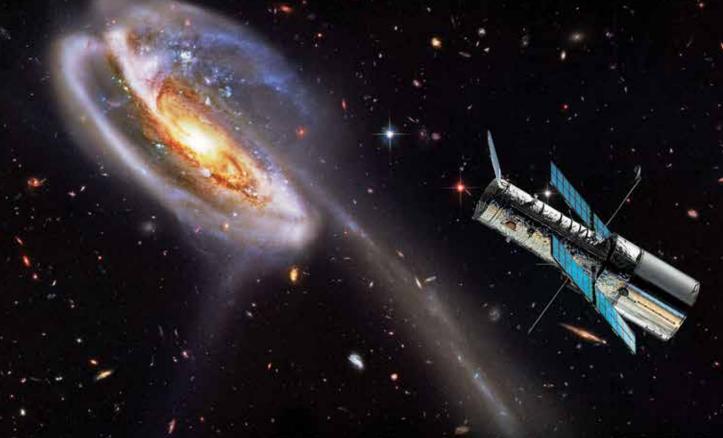
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DR. JOHN GRUNSFELD

2017 NATIONAL SPACE TROPHY RECIPIENT



We salute your many achievements and dedicated leadership that have helped extend mankind's scientific endeavours beyond our solar system and have provided a greater glimpse of the universe!





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