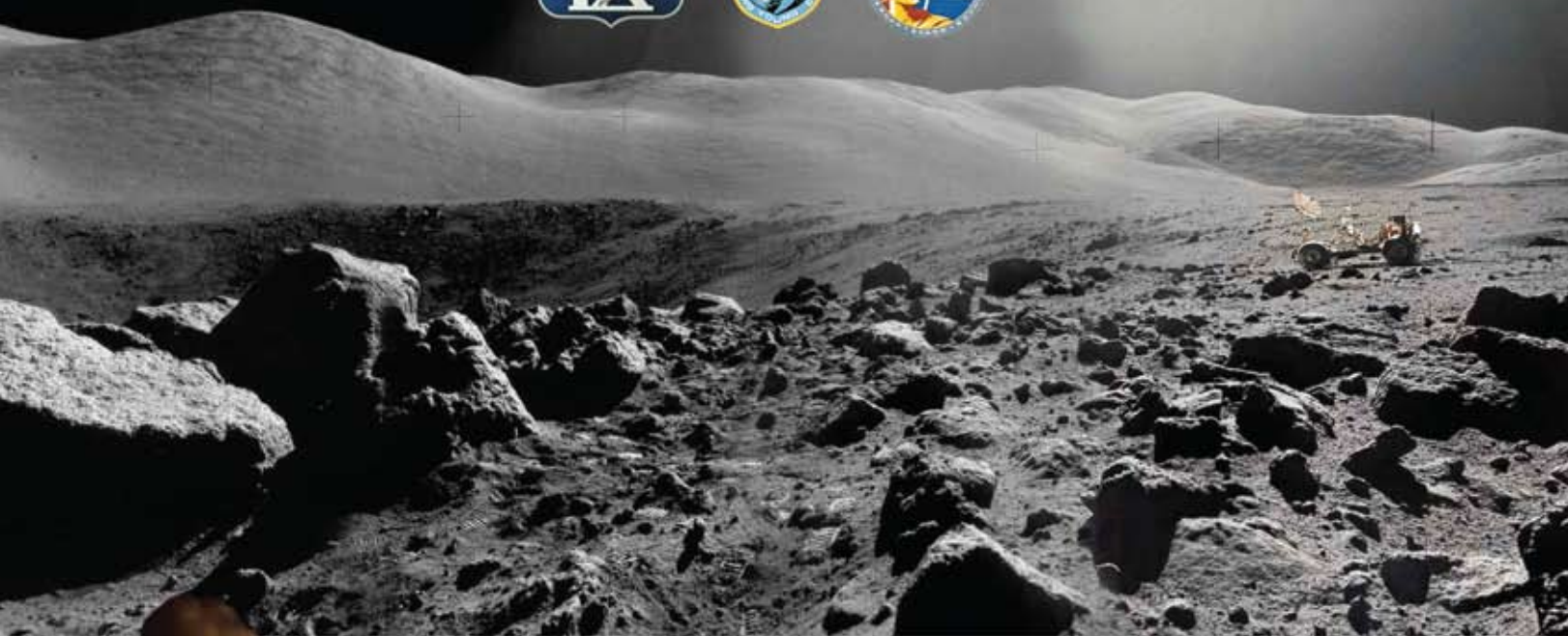


# 2008 ROTARY NATIONAL AWARD for SPACE ACHIEVEMENT



# Honoring Captain Eugene Cernan (USN, Ret.)

for his many outstanding achievements  
he has accomplished in the aerospace community



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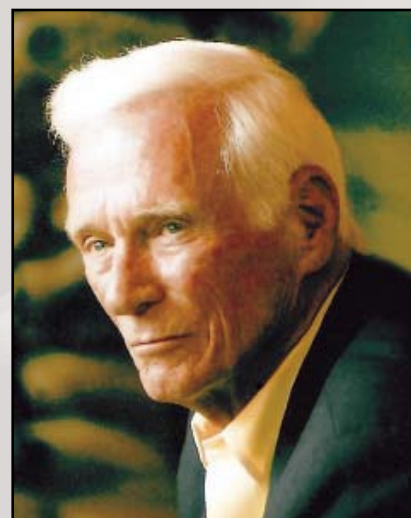


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## 2008 NATIONAL SPACE TROPHY RECIPIENT - Eugene Andrew Cernan

Rotary National Award for Space Achievement



Eugene Andrew Cernan.  
(Photo courtesy of The Cernan Corporation)

The Rotary National Award for Space Achievement (RNASA) Foundation recognizes retired Navy Captain Eugene Andrew Cernan with the 2008 National Space Trophy “for outstanding achievements as an astronaut; second American to walk in space; crew member on second flight to the moon; commander of the last landing on the moon; and as an advocate for space exploration and education.”

The 2007 Trophy winner and former Flight Director Gene Kranz said, “I had the privilege of launching Cernan on his first mission into space and again at the beginning of his journey on Apollo 17. Geno, as he was known to the controllers, left nothing to chance. His preparation for a mission was flawless, in-flight performance top-notch, and post-flight parties for the memory books.”

A second-generation American of Czech and Slovak descent, Cernan was born in Chicago, Illinois, on March 14, 1934. After watching WW2 movie news of Navy pilots, he decided, “That’s what I want to do!” (Cernan, *Last Man on the Moon*, [New York: St. Martin’s Press, 1999], 21). His father, Andrew Cernan (1904-1967), taught the budding engineer about engines through work on his grandfather’s Model A Ford. Cernan played football, worked as a golf caddy, and graduated 14<sup>th</sup> out of 762 students from Proviso Township High School in 1952. He headed to Purdue in Indiana.

With help from a Navy scholarship, Cernan received his BS in electrical engineering in 1956. He earned his wings in November of 1957, a month after Sputnik launched. But he almost didn’t survive pilot training. During an exercise at the “Top Gun” school in California, he clipped a target pole and “came within six inches of ... a catastrophic explosion.” His squadron buddies gave him a banner saying, “Order of the Bent Pole—Limited to Living, Low-flying Aviators” (ibid, 38).

On leave from aircraft carrier duty in 1959, he met a Continental Airlines stewardess, Barbara Atchley. They were married in 1961 and moved to Monterey, California while he worked on his master’s in aeronautical engineer-

ing at the U.S. Naval Post Graduate School. Their daughter Tracy was born in March 1963. A few months later, he got a call asking if he’d volunteer for the astronaut program. “Well, yes sir!” Cernan responded. “Not only that, sir, but hell, yes! Sir!” (ibid, 53). He finished his degree and reported to Johnson Space Center as one of 14 new astronauts.

Cernan’s first mission, Gemini 9, launched on June 3, 1966. The flight required the launch of a rendezvous target followed by the separate launch of the crew. The crew performed the rendezvous in record time. But docking was not possible because the nose shroud remained attached. Commander Tom Stafford (1930--) radioed Houston, “We have a weird-looking machine up here. It looks like an angry alligator” (ibid, 122). Nevertheless, the crew successfully demonstrated multiple rendezvous techniques.

At an altitude of 161 miles; Cernan became the second American to walk in space. “I grabbed the edges of the hatch and climbed out of my hole until I stood on my seat.” He



Cernan Gemini 9 spacewalk, June, 1966. (NASA)

likened the view to “sitting on God’s front porch” (ibid, 131).

His bliss was unfortunately short-lived. He struggled with “the snake” of his umbilical and his unbendable suit until his visor fogged. He barely squeezed back inside the capsule. His two-hour-and-ten-minute ordeal provided experience critical to the success of future spacewalks.

Cernan’s next flight, Apollo 10, was also commanded by Stafford. This “dress rehearsal” for the moon landing included John Young (1930--) as command module pilot. Launching on May 18, 1969, Apollo 10 became the second human flight to leave Earth orbit.

While Young flew the command module, Stafford and Cernan steered the lunar module to

continued on page 4





## 2008 NATIONAL SPACE TROPHY RECIPIENT - Eugene Andrew Cernan

Rotary National Award for Space Achievement



Apollo 10 lunar descent, May 1969. (NASA)

within nine miles of the moon's surface. "We were so close that I felt I might have to pick up my feet, lest my toes drag across the mountain-tops" (ibid, 216). During descent, Cernan reported that "Things went topsy-turvy ... We were totally out of control ...". Thinking they might have an open thruster, Stafford took over manually. Cernan noted that "... experts later surmised that had we continued spinning

for only two more seconds, Tom and I would have crashed" (ibid, 218). The flight returned safely to Earth on May 26, 1969.

Cernan commanded the final flight of Apollo to the Moon. Apollo 17 launched in darkness on December 7, 1972. "There was a brilliant and frightening burst of orange fire below the Saturn when the five huge engines ignited with a fury that shook the land and sea for miles around, and thick columns of white smoke boiled into the spotlights ... [and] rushed away across the low ground. For nine long seconds, the power built and the thunderclap roar spread over the sand dunes and



Apollo 17 night launch, December 7, 1972. (NASA)

marshland, making people in the grandstands three miles away cover their ears and shield their eyes as the deafening, staccato blast showed against their bodies hard enough for them to feel shirt buttons press against their chests" (ibid, 302).

While Ronald Evans (1933-90) orbited in America, Harrison "Jack" Schmitt (1935--) and Cernan descended to the surface in Challenger. Upon landing, Cernan was impressed

by the silence. "Not the song of a bird, the bark of a dog, not a whisper of wind or any familiar sound from my entire life" (ibid, 319).

They spent three days on the surface, setting records including: longest lunar landing (301 hours 51 minutes); longest lunar extravehicular activities (22 hours 6 minutes); largest sample return (about 249 lbs.); and longest time in lunar orbit (147 hours 48 minutes).

After parking the rover, Cernan knelt and wrote his daughter Tracy's initials in the lunar dust. The more formal plaque 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."

At the conclusion of Apollo 17, Cernan had logged more than 566 hours in space. From 1973 through 1975, he served as a senior negotiator for the Apollo/Soyuz project. He left NASA and retired from the Navy in July 1976.



Stafford and Cernan (in light coats) with cosmonauts in Moscow, Nov. 1973. (NASA)

Cernan served as a vice president of Coral Petroleum, Inc. from 1976 to 1981. In 1981, he founded The Cernan Corporation, an aerospace technology and marketing consulting firm of which he remains President and CEO. He served as

a consultant for Digital Equipment from 1986 to 1992, and as chairman of Johnson Engineering from 1994 until their acquisition by SPACEHAB in 2000.

Cernan has acted as a special technical consultant for television shows including ABC News and ESPN's documentary, "Earthwinds Hilton." His autobiography, *The Last Man on the Moon*, was published by St. Martin's Press in 1999.

Cernan and Barbara divorced in 1981. He married Jan Nanna in 1987. Residents of Houston, they have three daughters and nine grandchildren. His hobbies include a love for horses and all competitive sports activities.

Cernan's many accomplishments have earned him honors from the Navy, NASA, academia, the U.S. and foreign governments. The RNASA Foundation is privileged to further recognize Gene Cernan with the National Space Trophy.



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## 2008 MASTER OF CEREMONIES - Miles O'Brien

Rotary National Award for Space Achievement



Miles O'Brien. (NASA)

all aspects of human and unmanned spaceflight. His reporting of space missions goes back more than ten years when he covered John Glenn's return to space in 1998. He led CNN's coverage of NASA's failed Mars Climate Orbiter and Polar Lander in 1999, provided a series of live and taped reports from Russia and Kazakhstan coinciding with the launch of the first expedition crew to the International Space Station in 2000, created a documentary, "Terminal Count: What it Takes to Make the Space Shuttle Fly" in 2001, and continued coverage of the successful Mars Exploration Rovers, Spirit and Opportunity, that began their travels in 2003.

When tragedy struck the space community with the loss of the Columbia crew in 2003, O'Brien came to Johnson Space Center and prepared in-depth reports on the aftermath and subsequent investigation. He then covered the STS-114 Return-to-Flight in 2005 that was commanded by 2006 National Space Trophy winner Eileen Collins.

O'Brien is the former anchor for "CNN Saturday Morning" and "CNN Sunday Morning" as well as the former primetime co-anchor of "CNN Headline News," and a regular contributor to "Next@CNN," a one-hour weekly program covering science, technology, space, aviation and environmental current events. In the fall of 2005, O'Brien contributed live reports from the Gulf Coast in the aftermath of Hurricane Katrina, helping to earn CNN a Peabody award.

An instrument-rated pilot and part owner of a Cirrus

The RNASA Foundation is pleased to welcome back Miles O'Brien as Master of Ceremonies for this year's banquet. O'Brien is CNN's chief technology and environment correspondent. Based in New York, O'Brien has anchored various newscasts for CNN and Headline News including "Live From" (with Kyra Phillips) and "American Morning." O'Brien covers

SR-22 airplane, O'Brien also reports extensively on civil aviation issues and crash investigations, including those of US Air 427, TWA 800, Egyptair 990, American 587, and the accidents that took the lives of John F. Kennedy, Jr., Payne Stewart, and Senator Paul Wellstone. In the wake of the 2001 terrorist attacks, O'Brien used his flight experience to provide simulated walk-through coverage of the hijacked flights. He has also anchored much of the network's coverage of the war in Iraq and provided reports about military action, especially as it pertains to combat aviation.

O'Brien has a history degree from Georgetown and began his broadcasting career in 1982 at WRC-TV in D.C. He was a general assignment reporter and anchor at TV stations in Boston, Tampa, Albany, NY, and St. Joseph, MO. O'Brien joined CNN in 1992 as anchor and correspondent for CNN's Science Unit, producing stories for CNN's daily programming and writing and hosting the weekly broadcast "CNN Science & Technology Week."

O'Brien has been recognized with numerous awards, including the 2002 RNASA Space Communicator Award. O'Brien and his wife, Sandy, reside in New York City.



Miles has some fun with the audience at the 2005 RNASA banquet. (NASA)



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## 2008 SPACE COMMUNICATOR AWARD RECIPIENT - Neil deGrasse Tyson

Rotary National Award for Space Achievement



Neil deGrasse Tyson.  
(Photo by Dan Deitch for  
PBS/NOVA "Origins")

The RNASA Foundation selected astrophysicist Neil deGrasse Tyson, PhD, to receive the 2008 Space Communicator Award.

Tyson is an astrophysicist and the Frederick P. Rose director of the Hayden Planetarium at the American Museum of Natural History (AMNH) in New York City.

RNASA Advisor Jeffrey E. Carr said, "Dr. Tyson commands an uncommon grasp of the connections between the human and astrophysical

elements of our universe, and our need as humans to explore it. His remarkable ability to bring those connections to life for audiences in ways that are understandable, entertaining and compelling has contributed immeasurably to the public's understanding of and support for space exploration."

Tyson is the author of eight books that have educated millions of people on space topics. His latest, *Death By Black Hole—and Other Cosmic Quandaries* (W.W. Norton, New York, 2007), was a New York Times bestseller. He is a contributing essayist for *Natural History* magazine under the title "Universe," and has become a recognized spokesman for space science through his role as on-camera host for the PBS-NOVA 4-part mini-series "Origins" which aired in September 2004, and its spin-off program NOVA "ScienceNow", a look at the science that shapes the understanding of our place in the universe.

As a member of the NASA Advisory Council since 2006, Tyson helps guide the Agency in implementing its vision within its limited budget. He previously served on the 9-member Presidential Commission on the Implementation of the United States Space Exploration Policy that produced the report, *A Journey to Inspire, Innovate, and Discover* in 2004.

In explaining why space is important, Tyson wrote in *Parade* magazine (August 2007) that "Science and technology are the greatest engines of economic growth the world has ever

seen. Without regenerating homegrown interest in these fields, the comfortable lifestyle to which Americans have become accustomed will draw to a rapid close."

Born in New York City the same week NASA was founded, by the time Apollo 11 landed on the Moon, Tyson had already identified the universe as his life's passion. This interest drove him to earn a BA in physics from Harvard in 1980, a MA in astronomy from the University of Texas in 1983, and a PhD in astrophysics from Columbia in 1991. He joined the staff at the American Museum-Hayden Planetarium in 1994, and became director in 1996. In parallel, he served as a visiting research scientist with Princeton until 2003, when he became a research associate at the museum. His areas of study include star formation, exploding stars, dwarf galaxies, and the structure of the Milky Way.

Tyson has received numerous honors and awards, including nine honorary doctorates and the NASA Distinguished Public Service Medal. On the lighter side, he was named by *People* magazine as the Sexiest Astrophysicist Alive in 2000 and holds the record for the most appearances on "The Colbert Report". Chosen by *Time* magazine as one of the 100 most influential people in the world in 2007, Tyson resides in New York City with his wife and two children.

The RNASA Foundation is pleased to recognize Dr. Neil Tyson as one of the world's most inspirational, influential, and passionate communicators.



Tyson in the Hayden space theater.  
(Photo by Denis Finnin for AMNH)



# AVIATOR. ASTRONAUT. PIONEER. MOON MAN.

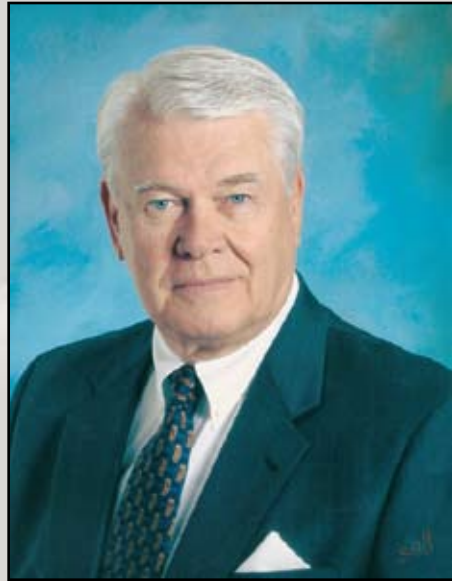
For his enormous contributions to America's space program, and the leadership that has inspired generations, Boeing is proud to congratulate Captain Eugene A. Cernan on receiving the 2008 National Space Trophy.





## 2008 NATIONAL SPACE TROPHY PRESENTER - Tom Short

Rotary National Award for Space Achievement



Tom Short.  
(Photo by Mike Scalf Photography, Inc.)

Presenting the National Space Trophy is RNASA Advisor Tom Short, a long-time business associate and friend of Captain Cernan.

Born in 1933 in Moberly, Missouri, Short graduated from Notre Dame with a BA degree in 1954, and was commissioned as a 2nd lieutenant in the United States Air Force that same year. He was granted a delay in reporting

for active duty to attend law school, and he graduated with an LLB/JD degree in 1956. He received his wings as a multi-engine pilot after completion of his training in B-25's at Reese AFB in Lubbock, Texas in 1957. He was then assigned as a pilot on a C-54 transport crew. He was eventually selected to be the aide-de-camp for the commanding general at the 16th Air Procurement District in New York City in addition to his duties as a pilot. Short was promoted to the rank of captain and transferred to inactive reserve in the fall of 1960.

In 1960, Short joined the RCA Defense Electronic Products Group in Moorestown, New Jersey as a contracts manager. Three years later he accepted a business development position with the Space and Information Systems Division of North American Aviation (NAA) in Downey, California. He was transferred to the NAA office in Washington D.C. for three years. He moved to Houston in 1964 as the manager of the Space Division Field Office. Short's job gave him the opportunity to meet and work with most of the Mercury, Gemini and Apollo astronauts, including Gene Cernan who became a good friend.

While in Houston, Short also participated in the formation of several new community and business organizations, including the Space City Rotary Club.

In 1968, Short accepted a position with the Systems Development Corporation in Santa Monica, California as the vice president of government marketing. He rejoined the Space

Division of North American Rockwell as the vice president of field operations three years later. Following the award of the space shuttle contract to North American Rockwell, Short relocated to Houston where he oversaw field operations at multiple NASA centers.

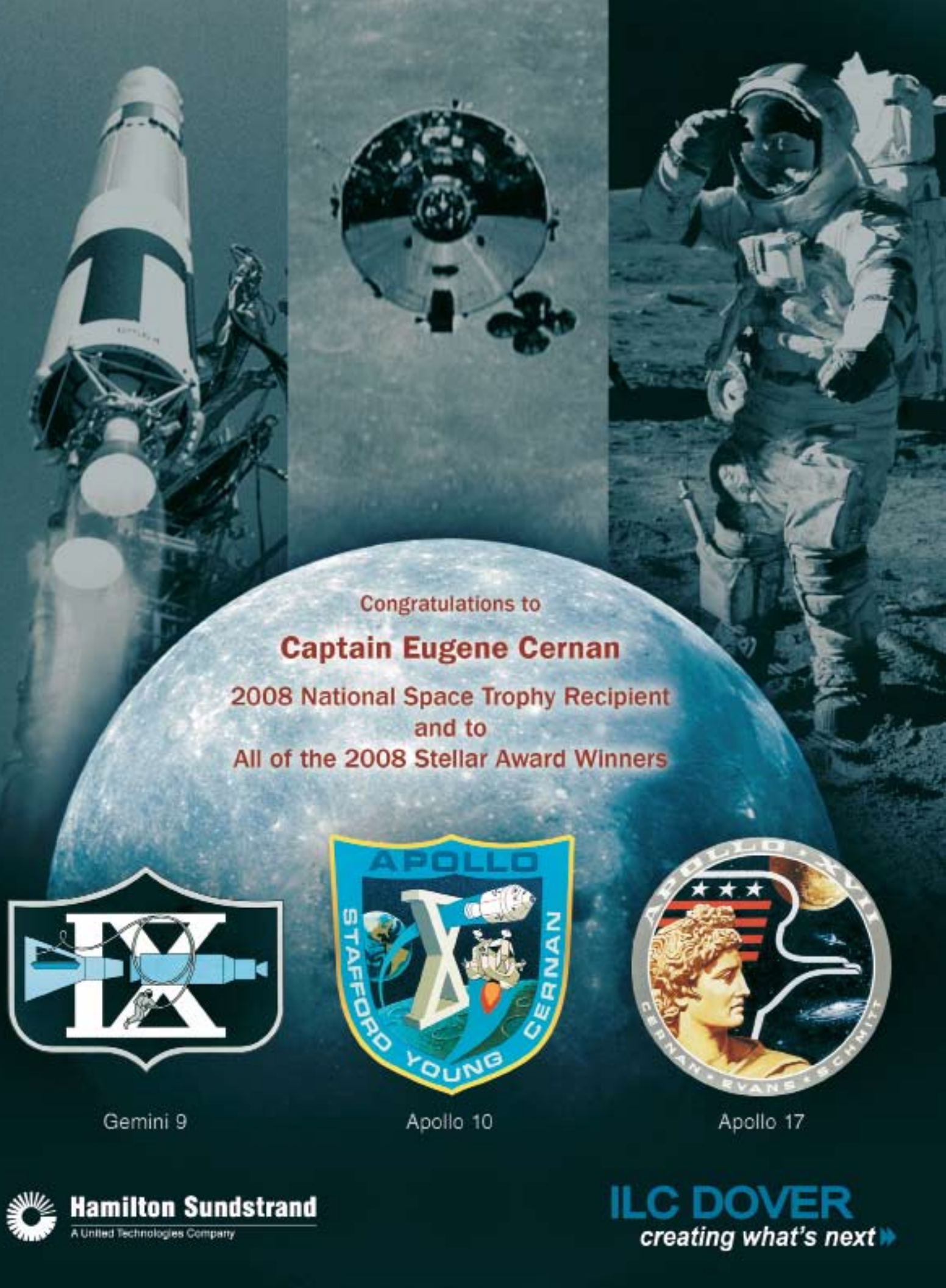
In 1976, Short became the President of Rileys Datashare, a publicly-traded oilfield services company in Calgary, Canada. He and his family remained in Calgary for more than ten years. In addition to his position with Rileys, he also was the President and owner of several other oilfield service organizations, including Muskeg Oilfield Services and Canadian Short Line, Inc.

Short returned to Houston in 1987 to work with the Digital Equipment Corporation (DEC) where he shared an office with Gene Cernan, who was also consulting for DEC. Short's position with DEC was as manager of their aerospace corporate accounts, responsible for more than \$350 million in annual sales. He retired from DEC in 1992, but he didn't stay retired very long.

He accepted an executive marketing position with American Pacific Corporation, and worked in Las Vegas, Nevada, for the next two years. During this same period, Short and Cernan were both members of the Board of Directors of the Johnson Engineering (JE) Corporation. They joined with Bill Jackson in the acquisition of JE in 1994. Short returned to Houston to be president and CEO of the company. Cernan was the chairman of the board and Bill Jackson was the chief financial officer. In 1998, the owners sold JE to the SPACEHAB Corporation. Short was retained by SPACEHAB as senior vice president of the JE subsidiary for the next three years.

In 2001, Short retired for the second time. Once again, he failed to remain retired. In 2004, Short became the president and CEO of Anadarko Industries, a company owned by the Wichita and Affiliated Tribes of Anadarko, Oklahoma. He is still active in this capacity and enjoying the challenge of building a new company for the tribe.

Short has been married to his wife Carol for 47 years. They have five children and nine grandchildren. They live once again in what Short calls "good old" Houston, Texas. His hobbies include an occasional round of golf. The RNASA Foundation is pleased to have him join us in recognizing Captain Cernan with the National Space Trophy.



Gemini 9

Apollo 10

Apollo 17



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## 2008 SPACE COMMUNICATOR AWARD PRESENTER - Jeffrey E. Carr

Rotary National Award for Space Achievement



Jeffrey E. Carr.  
(Photo courtesy Jeff Carr)

**R**NASA Advisor Jeffrey E. Carr is presenting the 2008 Space Communicator Award to Dr. Neil deGrasse Tyson on behalf of the Foundation. Director of Communications and Public Relations for United Space Alliance (USA) since 1998, Carr

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.

Carr served on temporary assignment in 1993 as special assistant for communications to the NASA administrator (then Dan Goldin). He provided critical transition support and insights into key issues and activities for the Agency during the early months of the Clinton administration. His duties included speechwriting, media relations and White House liaison support.

As acting director of Public Affairs at JSC, Carr developed and directed educational programs, media production and broadcasting, media services, news and information services, visitor programs, and exhibits and public appearances.

Carr joined USA in 1996, and has reported directly to the President and CEO since 1998. He is responsible for company reputation management through strategic communications including media, community, and customer relations; state and local government relations; marketing communications and advertising.

Believing that the United States should remain a leader in space, science and technology, Carr is one of the founders and driving forces behind the Coalition for Space Exploration, a collaboration of space industry businesses and advocacy groups that educates and informs the public on the value and benefits of space exploration. Carr recently worked with Tyson on an upcoming PBS broadcast sponsored by the Coalition.

Carr has more than 25 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. The RNASA Foundation is grateful to Jeff Carr for all the volunteer time and talent he brings to the organization as one of our most active advisors.



is a member of the team that won the Space Communicator Award in 2004.

Born in New Bern, North Carolina, Carr moved to Houston when his father, Gerald Carr (1932- ) was selected as an astronaut in 1966. The senior Carr flew as commander of the 84-day Skylab 4 mission in 1973.

Carr graduated with a BS in Radio-Television- Film from the University of Texas in 1982. His teaching assistant in ASTRO 301 was a young Neil Tyson.

In the early 80s, Carr was vice president and manager of Mission Operations for Media Services Corporation, managing 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.



Mars Pathfinder launch, December 4, 1996.

Congratulations to  
Captain Eugene Cernan, U.S. Navy (Ret.)  
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We also congratulate the Stellar Award nominees and winners  
for their contributions to American success in space.



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## 2008 STELLAR AWARD PRESENTER - Commander Sunita L. Williams

Rotary National Award for Space Achievement



Commander Sunita Williams, USN. (NASA)

The RNASA Foundation welcomes astronaut and Navy Commander Sunita (“Suni” pronounced “sunny”) L. Williams as a 2008 Stellar Award presenter. Williams set a new world record of 195 days in space by a woman during her stay on the International Space Station (ISS) that ended in June of last year.

Of Indian descent, Williams was born in Euclid, Ohio on September 19, 1965, but considers Needham, Massachusetts her hometown. She graduated from Needham High School in 1983. She earned her BS in physical science from the U.S. Naval Academy and received her commission as an ensign in May 1987.

After a six-month assignment at the Naval Coastal System Command, she received her designation as a basic diving officer and reported to Naval Aviation Training Command. She was designated a naval aviator in July 1989, reporting to Helicopter Combat Support Squadron 3 for initial H46 Seaknight training. Upon completion of this training, she was assigned to Helicopter Combat Support Squadron 8 in Norfolk, Virginia. She made overseas deployments to the Mediterranean, Red Sea and the Persian Gulf in support of Desert Shield and Operation Provide Comfort.

In September 1992, Williams became the officer-in-charge of an H-46 detachment onboard USS Sylvania sent to Miami, Florida for hurricane Andrew relief. Williams graduated from Naval Test Pilot in December 1993, and joined the Rotary Wing Aircraft Test Directorate as an H-46 project officer, and V-22 chase pilot in the T-2. While there, she was also assigned as the squadron safety officer and flew test flights in the SH-60B/F, UH-1, AH-1W, SH-2, VH-3, H-46, CH-53 and the H-57.

Williams earned her masters in engineering management from the Florida Institute of Technology in 1995. In December that year, she returned to the Naval Test Pilot School as an instructor in the Rotary Wing Department and as the school’s safety officer. She flew the UH-60, OH-6 and the OH-58. Her next assignment was as aircraft handler and assistant air boss on the USS Saipan (LHA-2) based in Norfolk,

Virginia. With more than 2,770 hours in more than 30 different aircraft, Williams was selected for the astronaut program in 1998.

After training, Williams worked with the ISS first expedition crew in Moscow. Following their return from space in 2001, Williams worked within the Robotics Branch on the ISS robotic arm and the Canadian Dextre (which was installed on the station this March).

As a NEEMO2 crewmember, she lived underwater in the Aquarius habitat off the coast of Florida for nine days in May 2002. This was great experience for her later record-breaking stay in space. Launched on STS-116 on December 9, 2006, Williams joined the Expedition 14 crew onboard the International Space Station two days later. On January 31, February 4, and February 9, 2007, she completed three spacewalks from the ISS with Michael Lopez-Alegria, setting a new record for spacewalk time by a woman (subsequently broken by Peggy Whitson this past December).

An avid runner, in April of 2007, she completed the Boston marathon in four hours and 24 minutes via the station treadmill. When Williams’ return flight, STS-117, was delayed two months because of hail damage, she surpassed Shannon Lucid’s duration record set back in 1996. Williams landed at Edwards Air Force Base on June 22, 2007, having spent 194 days, 18 hours and 58 minutes in space. Williams currently serves as deputy chief of the Astronaut Office.

Williams is a member of the Society of Experimental Test Pilots, the Society of Flight Test Engineers, and the American Helicopter Association. Her awards include two Navy Commendation Medals, a Navy and Marine Corps Achievement Medal, a Humanitarian Service Medal, and the NASA Distinguished Medal.

Married to Michael J. Williams, she enjoys running, swimming, biking, triathlons, windsurfing, snowboarding and bow hunting. A crazy Jack Russell Terrier named Gorby adds his share of excitement to her life.



Williams runs the Boston marathon in April 2007. (NASA)



## 2008 STELLAR AWARD PRESENTER - Leland Melvin

Rotary National Award for Space Achievement



Leland Melvin. (NASA)

The RNASA Foundation is pleased to have astronaut Leland Melvin as a Stellar Award presenter this year. The former football player flew as a mission specialist on the STS-122 flight of Atlantis this February 7-20. He celebrated his 44th birthday while in space.

Originally from Lynchburg, Virginia, Melvin graduated from Heritage High

School in Lynchburg, Virginia in 1982. He received a bachelor of science in chemistry from the University of Richmond in Richmond, Virginia in 1986, and was chosen by the Detroit Lions in the 11th round of the 1986 NFL college draft. He participated in the Toronto Argonauts and Dallas Cowboys football training camps.

Melvin began his career with NASA in the Fiber Optic Sensors Group of the Nondestructive Evaluation Sciences Branch at NASA Langley Research Center in 1989. He conducted research on advanced instrumentation for nondestructive evaluation (NDE) while earning a masters degree in materials science engineering from the University of Virginia (awarded 1991). His research included using optical fiber sensors to measure strain, temperature, and chemical damage in both composite and metallic structures.

In 1994, Melvin was selected to lead the Vehicle Health Monitoring team for the cooperative Lockheed/NASA X-33 Reusable Launch Vehicle Program. The team developed distributed fiber optic strain, temperature and hydrogen sensors to reduce operational costs and to monitor composite liquid oxygen tank and cryogenic insulation performance. Two years later, Melvin co-designed and monitored construction of an optical NDE facility capable of producing in-line fiber optic Bragg grating strain sensors at rates in excess of 1,000 per hour. This facility will provide a way to perform advanced sensor and laser research for development of aerospace and civilian health-monitoring systems.

Melvin was selected as an astronaut in 1998. He served in the Astronaut Office Space Station Operations Branch, the Education Department at NASA Headquarters, Washington, D.C., and the Robotics Branch of the Astronaut

Office. As co-manager of NASA’s Educator Astronaut Program, Melvin traveled across the country, inspiring thousands of students to pursue careers in science, technology, engineering and math.

STS-122 was Melvin’s first flight and the 24th shuttle mission to visit the International Space Station. A highlight of the mission was the delivery and installation of the European Space Agency’s (ESA’s) Columbus module. As a robotic arm operator, Melvin supported the three spacewalks required to prepare Columbus for operation, and to replace a used nitrogen tank on the station’s truss. STS-122 also provided a ride up for ESA Astronaut Léopold Eyharts, and a ride home for Expedition-16 NASA Astronaut Daniel Tani. At the end of this mission, Melvin had logged 12 days, 18 hours, 21 minutes and 40 seconds in space.

Melvin is a member of National Technical Association (Hampton Roads Chapter), American Chemical Society, and the Society for Experimental Mechanics. His awards include the Invention Disclosure Award for Lead Insensitive Fiber Optic Phase Locked Loop Sensor; eight NASA Outstanding Performance Awards; two NASA Superior Accomplishment Awards; the NASA Space Flight Medal; the Key to the City of Lynchburg, Virginia; the title of NCAA Division I Academic All American; and induction into the University of Richmond’s Athletic Hall of Fame.

Amazingly unmarried, the handsome bachelor loves walking his dogs, Jake and Scout. He also enjoys photography, piano, reading, music, cycling, tennis and snowboarding.



Melvin during STS-122, February, 2008. (NASA)







## ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT FOUNDATION

Rotary National Award for Space Achievement



**Front Row (left to right):** Sheila Self, Ann Charles, Jenny Mitchell, Mary Alys Cherry, L. Jean Walker (Secretary), Marianne Dyson

**Middle Row (left to right):** Floyd Bennett, Frank Perez, Bill Geissler, Bill Taylor (Vice Chairman), Jack Lister, Bob Wren, Jayant Ramakrishnan, Duane Ross

**Back Row (left to right):** S. John Wilkins III, Gary Johnson, Rodolfo González (Chairman), Marcus Havican, Steven Fredrickson, Richard Jackson, Geoff Atwater (Treasurer)

**Not Pictured:** Shelley Baccus, Jeffrey Carr, Branelle Cibuzar, Lindsey Cousins, Murray Epstein, Susan Gomez, Dick Gregg III, David Hamblin, Tim Kropp, Kim Nahas

*Photo by J. Pamela Photography, Inc.*

The Rotary National Award for Space Achievement (RNASA) Foundation exists to recognize the people whose work in the field of space exploration has lasting impact and benefits. Established twenty-two years ago by the Space Center Rotary Club, the Foundation carries out its goal through organizing an annual awards gala.

The top award is the National Space Trophy (NST) being presented to Captain Eugene Cernan this year. Outstanding individuals (pages 32-33 for previous winners) are first nominated by government, industry, and professional organizations. The winner is then selected by a vote of the Foundation's Board of Advisors (page 34) that includes current and former NASA center directors, presidents of aerospace corporations, space journalists, and previous award recipients. The confidential votes are tabulated by an independent accounting firm.

The Foundation also periodically recognizes individuals or groups with special awards such as the Space Communicator Award presented this year to Dr. Neil deGrasseTyson (page 8).

To recognize the "unsung heroes" of the space program, Stellar Awards for individual and team achievements are solicited from NASA, the military, and industry leaders in human and unmanned spaceflight programs. The awards are divided into four categories: Early-career, Mid-career, Late-career, and Teams. Nominations (pages 20-31) are reviewed by a distinguished panel who selects the winners based on which accomplishments hold the greatest promise for furthering future successes in space. This year's evaluators were former NASA Associate Administrator for Space Systems

Development, Dr. Arnold Aldrich, and former NASA Flight Directors and NST winners Dr. Christopher C. Kraft, Jr. (1999) and Dr. Glynn S. Lunney (2005).

The RNASA Foundation is a nonprofit organization that depends on corporate sponsorships to create an event that has been called the "Academy Awards of Space." For the past eight years, the event has grown so that the Foundation has been able to donate scholarships for space-related programs, including Purdue, the University of Houston-Clear Lake, the Wings of the Eagle Foundation, Parks College of Engineering at St. Louis University, and the Texas High School Aerospace Scholars (HAS) program.

The Texas HAS students complete on-line lessons and then spend a week at JSC where they are briefed by engineers, scientists, and astronauts; and compete in building rovers, rockets, and landers. HAS plans for 2008 include summer sessions for 360 high-school juniors. One student wrote, "My week at the Johnson Space Center inspired me to definitely become an aerospace engineer and aspire to work as a co-op after I graduate from high school, hopefully to eventually work ... in the area of manned spaceflight." – Cody, HAS 2005, Bandera High School, Bandera.

The Foundation is grateful for the enthusiasm and support it has received from the aerospace industry, educational organizations, NASA, and the Department of Defense. This support assures the continued recognition of outstanding achievements by United States citizens in the area of space exploration, and support of today's students who will become our future space explorers.



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## Congratulations Captain Cernan

ManTech International Corporation, and its more than 7,300 employees, congratulates **Captain Eugene Cernan (USN Ret.)**, for receiving the **Rotary National Award for Space Achievement**; and we thank him for his service to our country.

ManTech is a leading provider of innovative technologies and solutions for mission-critical national security programs and we provide a variety of services to NASA and the Space Community. We are a top developer of the some of the largest unmanned space structures. ManTech is also working at NASA's Jet Propulsion Lab, Kennedy Space Center, Marshall Space Center and Johnson Space Center, in addition to many years supporting the Goddard Space Flight Center and the Hubble Space Telescope program.

We are also excited to leverage our experience and expertise in support of NASA's Constellation program, where we provide system engineering and integration solutions as well as mission assurance engineering.



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# 22nd ANNUAL RNASA BANQUET

## PROGRAM

Friday, April 25, 2008

6:00

### RECEPTION

Victoria Reva, pianist

7:00

### WELCOME

Rodolfo González, Chairman, RNASA Foundation

### PRESENTATION OF THE COLORS

Clear Lake High School Army JROTC Color Guard

### NATIONAL ANTHEM

Shari Wilkins

### INVOCATION

Rev. William H. King, III, Pastor

Greater New Hope Missionary Baptist Church

### DINNER

8:15

### OPENING VIDEO

Space City Films

### MASTER OF CEREMONIES

Miles O'Brien, CNN Correspondent

### PRESENTATION OF COMMUNICATOR AWARD

Jeffrey Carr, Director of Communications, United Space Alliance

### PRESENTATION OF STELLAR AWARDS

Sunita Williams, Commander, USN, NASA Astronaut

Leland Melvin, NASA Astronaut

### PRESENTATION OF NATIONAL SPACE TROPHY

W. Tom Short, President, Anadarko Industries

### PRESENTATION OF THE OMEGA WATCH

Lt. Gen. Thomas Stafford, USN (Ret.)

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## 2008 STELLAR AWARD NOMINEES - EARLY

Rotary National Award for Space Achievement



*Stellar Award winners receive a high-quality marbled trophy such as the one shown here.*

**Jeremy H. Brand of NASA Johnson Space Center** - Technical excellence in thermal protection system materials and processes, and key contributions to the Orbiter Damage Assessment team.

**Jimmy M. Doll, Jr. of Lockheed Martin Space Systems Company** - Outstanding leadership demonstrated during the external tank-120 restoration and delivery

effort in support of the Space Shuttle Program manifest, resulting in improved understanding and reduction of external tank debris.

**Timothy A. Finkel of NASA Johnson Space Center** - Outstanding leadership in ground testing, development of operational philosophies, procedures, and safety controls culminating in the successful activation of the oxygen generator system onboard the International Space Station.

**Ryan T. Gill of The Boeing Company** - Exceptional initiative and leadership in project integration for design, build and delivery of International Space Station flight hardware, and for production implementation of an engineering design release system.

**Michael Gregory of ARES Corporation** - Significant leadership efforts in promoting knowledge management and retention to ease NASA's workforce transition while providing full support to the Vision for Space Exploration.

**1st Lt. Anna E. Gunn-Golkin of the USAF, 1st Air and Space Test Squadron** - Outstanding contributions to space material sciences, Missile Defense Agency development efforts, and community programs supporting space and aerospace education.

**Elizabeth P. Hayley of NASA Johnson Space Center** - Exceptional technical support to the Shuttle Orbiter Environmental Control and Life Support Systems team as the NASA subsystem engineer for atmosphere revitalization.

**Maj. David J. Laird of the USAF, 45th Space Wing, 45th Launch Support Squadron** - Outstanding contributions to enabling technologies for future space capabilities including communications and responsive space, and contributions to mission assurance for current spacecraft and space lift campaigns.

**Neal E. Lepsetz of Pratt & Whitney Rocketdyne** - Outstanding leadership, technical accomplishment, and dedication in support of space shuttle main engine test and flight operations.

**Thomas N. Martin III of Pratt & Whitney Rocketdyne** - Outstanding contributions to the design, development and testing of space flight injector and ignition systems.

**Capt. Jason D. Niederhauser of the USAF, 1st Air and Space Test Squadron** - Outstanding leadership in developing and testing operationally responsive space concepts and prototypes while laying the foundation for gaining and maintaining space superiority.

**Alyssa M. Olson of Space Applications International Corporation** - Exceptional safety and mission assurance contributions in addressing flight issues with the shuttle remote manipulator system and design issues with the orbiter boom sensor system and keep-alive umbilical.

**John K. Paris of Pratt & Whitney Rocketdyne** - Leadership and technical excellence in support of multidisciplinary simulation tools and processes for the J-2X engine, enhancement and application of tools for hypersonic propulsion, and development of an automated manifold design tool.

**Paul Albert Parker of The Boeing Company** - Exemplary contributions as lead orbiter debris analyst, ensuring shuttle thermal protection system structural integrity for Earth entry.

**1st Lt. Jodie J.E. Pleisch of the USAF, 1st Air and Space Test Squadron** - Outstanding dedication and launch mission management in overseeing two critical Missile Defense Agency test launches, enhancing national security.

*continued on next page.*



**2007 Early Career Winners (L to R):** James Reilly, II (presenting), Robert Crouch, David York, Mark Mulqueen (for Matthew Scudder), Joshua Hopkins, Capt. Brian M. Clifford, USAF, Joan Higginbotham (presenting). Dana Weigel not pictured. (NASA)

**Stephen E. Prescott of Pratt & Whitney Rocketdyne** - Outstanding dedication, leadership, and technical excellence in supporting safe flight of the space shuttle.

**Jessica A. Stuart of Pratt & Whitney Rocketdyne** - Leadership and technical excellence in enabling safe flight for the Delta II RS-27 engine and the Delta IV RS-68 engine.

**Lauren Walls of Booz Allen Hamilton** - Outstanding contribution to International Space Station assembly and maintenance by early identification and resolution of resupply needs.

**Monique S. Wilburn of NASA Johnson Space Center** - Tireless work ethic and enthusiastic dedication to the Energy Systems Division Battery Group projects.

**Heather J. Wojciechowski of ATK Launch Systems** - Outstanding initiative, enthusiasm and leadership instrumental to the successful qualification of the ATK booster separation motor for the Space Shuttle Program.

**Jody Woods of NASA Stennis Space Center** - Exceptional technical expertise and demonstrated leadership in multi-physics modeling and analysis application to rocket propulsion test systems development.

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## 2008 STELLAR AWARD NOMINEES - MIDDLE

Rotary National Award for Space Achievement

**Tech. Sgt. Jesse A. Arbour of the USAF, 45th Space Wing, 45th Launch Support Squadron** - Successful launch site integration leadership on the first Wideband SATCOM launch and formulation of new mission assurance processes for the 45th Launch Support Squadron, resulting in selection as the lead for future Wideband SATCOM spacecraft missions.

**Dan R. Bell of The Boeing Company** - Outstanding leadership of the orbiter thermal protection system technical community including leadership of the On-orbit Debris Assessment Team during each mission.

**Roger E. Berenson of Pratt & Whitney Rocketdyne** - Outstanding leadership in the development of the RS-68A engine system and major contributions to the development of multiple rocket engine systems.

**James M. Berreth of The Boeing Company** - Outstanding leadership of the design, development and flawless operation of the station-shuttle power transfer system, supporting extended duration of shuttle missions to the International Space Station.

**David E. Bierwirth of Lockheed Martin Mission Services** - Exceptional technical expertise demonstrated across multiple disciplines, including status accounting and verification, systems engineering and safety and mission assurance.

**Kelly S. Carney of NASA Glenn Research Center** - Exceptional fundamental research creating material models for impact analysis, allowing the accurate assessment of the risks from debris to the space shuttle and other systems.

**Keiko Chevray of NASA Johnson Space Center** - Outstanding leadership, insight, and technical excellence in the evaluation, design, and verification of integrated guidance, navigation and control system performance for advanced spacecraft.

**Michael J. Dunham of The Boeing Company** - Exemplary achievements as the space shuttle orbiter stress, loads, and dynamics subsystem manager, ensuring the orbiter structure meets Space Shuttle Program requirements.

**Vanessa S. Ellerbe-Wycne of NASA Johnson Space Center** - Decades of leadership in streamlining Space Shuttle and Constellation Program planning, development, and integration of operations requirements, processes, and plans that significantly reduce costs and improve performance of human space flight.

**Michael P. Gordon of The Boeing Company** - Outstanding leadership of the orbiter leading-edge structural subsystem technical community, consistently demonstrating dedication, skill, and expertise.

**Douglas R. Hamilton of Wyle** - Outstanding effort to identify and understand potential issues of plasma shock hazard on ISS,

and provide information to ensure the safety of extravehicular crewmembers from this hazard.

**J. Derek Hassmann of NASA Johnson Space Center** - Exceptional professionalism, outstanding leadership and technical expertise in the preparation and execution of complex International Space Station assembly mission operations.

**Michael T. Henry of ATK Launch Systems** - Visionary leadership in creating an exceptionally strong safety and mission assurance team of proactive, collaborative problem solvers that continues to lead innovation and improvements for shuttle, Ares, and next-generation launch vehicles.

**Lara E. Kearney of NASA Johnson Space Center** - Visionary leadership and management expertise in establishing the EVA systems project for the Constellation Program.

**Keith L. Kreutzberg of Wyle** - Pioneering commitment to developing streamlined research integration and management processes, hardware development and operations for NASA programs.

**James G. LaRocque of United Space Alliance** - Exemplary leadership and dedication to applying industrial quality improvement processes, including Lean Six Sigma, to human spaceflight programs.

**Robert K. Levy of The Boeing Company** - Excellent technical performance and leadership of electrical power system operations on the International Space Station (ISS), providing innovative solutions to ensure power resources support ISS objectives.

**Stephen Lucero of the USAF, Air Force Research Laboratory** - Outstanding contributions to satellite performance and survivability in low-Earth orbit.

**Michael C. McBain of Lockheed Martin Space Systems Company** - Exceptional leadership and commitment demonstrated on the space shuttle return-to-flight effort.

**Bruce A. McDavid of Pratt & Whitney Rocketdyne** - Excellence in development and support of space shuttle main engine high pressure turbomachinery.

**Mark E. Mulqueen of The Boeing Company** - Exceptional leadership and technical development of the International Space Station external truss elements and successful and sustained operation of the ISS.

**William M. Munsch of Pratt & Whitney Rocketdyne** - Outstanding achievements and leadership on diverse liquid propulsion programs leading to significant advancements in launch vehicle capability and technology.



continued on page 24



2007 Middle-Career Winners (L to R): Joan Higginbotham (presenting), Timothy Leonard, Carson Sparks, Christopher Singer, Kimberly Doering, Wanda Sigur, Robert Cuardos, Anthony Ceccacci, James Reilly, II (presenting), James Kennedy not pictured. (NASA)





## 2008 STELLAR AWARD NOMINEES - MIDDLE (continued)

Rotary National Award for Space Achievement

**Dale B. Nielsen of ATK Launch Systems** - Exceptional knowledge, personal dedication and outstanding technical accomplishments in resolving loads and structural challenges for the space launch community.

**Scott M. O'Connor of the United States Air Force** - Exceptional leadership, professionalism and technical expertise in establishing the Space Test Integration Office, Air Force Space Command's focal organization for the integration of development and operational testing.

**Carlos Ortiz of The Boeing Company** - Outstanding engineering skill, debris domain expertise, and effective leadership in support of the Space Shuttle Program.

**Peter J. Pacey of SPACEHAB, Inc.** - Outstanding contribution to the space program through exceptional leadership in the development and management of SPACEHAB's Space Shuttle Module Program, cargo carrier hardware, and other domestic and international space service initiatives.

**Glen R. Phillips of the Lockheed Martin Space Systems Company** - Exceptional knowledge, leadership, dedication and perseverance instrumental in completing the fabrication and certification of the generic pan tilt unit to support the return-to-flight space shuttle missions.

**Jeffery P. Pilet of the Lockheed Martin Space Systems Company** - Outstanding technical achievement in design, development, demonstration and verification of space shuttle external tank return-to-flight changes.

**Glenn P. Rakow of NASA Goddard Space Flight Center** - Successful leadership in gaining the U.S. aerospace community's acceptance of the Space Wire standard, which is enabling more aerospace missions at lower cost through the reuse of components and avionics systems.

**Jayant V. Ramakrishnan of the ARES Corporation** - Dedication and tireless efforts in furthering the human space program through contributions to the International Space Station and the aerospace community.

**Dena M. Richmond of United Space Alliance** - Outstanding achievements and accomplishments in Kennedy Space Center paperless work execution and business system enhancements.

**Robert R. Romanofsky of NASA Glenn Research Center** - Innovative technology contributions in the research and development of novel microwave devices and systems in support of NASA's space communications programs.

**Peter A. Schilhavy of Pratt & Whitney Rocketdyne** - Exceptional technical expertise in design, integration, and development of liquid rocket engine propulsion systems including J-2X, X-33, and divert and attitude control systems.

**Mark B. Schrock of United Space Alliance** - Significant contributions to the design and development of innovative proximity operations techniques required to support the Space Shuttle Program.

**Terry J. Soich of Honeywell** - Exemplary dedication, professionalism, and technical leadership in supporting the build, integration and operation of the ISS command and data handling systems.

**Troy C. Stratton of ATK Launch Systems** - Successful development and application of testing, analysis and design innovations resulting in significant safety and reliability improvements in the nation's human space flight programs.

**Michael E. Vinje of NASA Kennedy Space Center** - Excellence and dedication in support of the Orion crew exploration vehicle "off-line" processing.

**Jeffery S. Welsh of the USAF, Air Force Research Laboratory Space Vehicles Directorate** - Exceptional contributions toward improving space access for experiments and demonstrations, and for increasing the understanding of failure mechanisms in composite materials.

**Gary L. Wentz of NASA Marshall Space Flight Center** - Consistent technical excellence across a range of complex missions that empower America's human and robotic exploration of space, both today and in the decades ahead.

**Martha P. Willis of Pratt & Whitney Rocketdyne** - Significant contributions to America's space program in the area of space shuttle main engine advanced health management.

**David Witwer of Space Applications International Corporation** - Exceptional level of professional responsibility, technical expertise, and leadership as senior safety operations engineer, demonstrating superior contributions to shuttle safety and the development of the Orion cockpit design.

**Carol Wong of Lockheed Martin Mission Services** - Exceptional leadership on the Lockheed Martin Orion spacecraft design team from contract award through System Definition Review, and promotion of diversity in the workplace through support of women's and minorities' achievements.

**Warren Woodworth of United Space Alliance** - Outstanding creativity and leadership in solving complex orbiter problems enabling on-time accomplishment of major program milestones and avoiding significant rework costs.

**Gregory M. Wright of NASA Marshall Space Flight Center** - For outstanding dedication, professionalism, and leadership of the Chandra X-ray observatory mission operations activities.



2007 Late-Career Winners (L to R): James Reilly, II (presenting), Tommie Lacefield, Eugene Beckett, Terry Boardman, Capt. Dan Brandenstein, USN (Ret.), Glenn Ecord, Robert Savely, Joan Higginbotham (presenting). (NASA)

### Congratulations to Captain Eugene Cernan

566 hours and 15 minutes in space,  
more than 73 hours on the surface of the moon.

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We also want to recognize Dr. Tyson, Space Communicator Award winner, and the Stellar Award winners.

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## 2008 STELLAR AWARD NOMINEES - LATE

Rotary National Award for Space Achievement

### **Robert Acree of the USAF, Air Force Research**

**Laboratory** - Outstanding leadership, management, and technical expertise provided during more than 30 years of federal service to space satellite systems.

**William Atwell of The Boeing Company** - Internationally recognized expertise and 40 years of experience in the areas of: the space radiation environment; high-energy particle transport through materials; active and passive dosimetry; spacecraft, satellite, and anatomical modeling/shielding analyses; radiation detection instrumentation; and biological and physical effects.

**Bruce Bowman of the USAF, Headquarters Air Force Space Command** - Significant contributions to space environment understanding, including improving space catalog accuracy, providing better collision avoidance with reduced spacecraft maneuvers, and significantly increasing accuracy of decay predictions.

**Robert A. Edmondson of the USAF, 412th Test Wing, Air Force Flight Test Center** - More than 50 years of outstanding technical leadership contributions to Apollo and Space Shuttle Programs, and to technologies for access to space.

**Stephen M. Francois of NASA Kennedy Space Center** - More than 30 years of outstanding technical leadership of NASA's unmanned launch services, guaranteeing access to space for the delivery of on-time, on-cost, and on-orbit launch assets.

**James V. French of the ARES Corporation** - Sustained outstanding contributions to aircraft and spacecraft propulsion systems.

**William Gleason of the ARES Corporation** - Outstanding contributions to the nation's space program by visualizing the future of humanity's efforts in space, and solving technical challenges to turn vision into reality.

**Stanley R. Graves of ATK Launch Systems** - Visionary leadership in furthering engineering design excellence and flight safety for the Space Shuttle Program.

**Walter W. Guy of NASA Johnson Space Center** - Lifetime achievement in human spaceflight through outstanding technical and managerial abilities that have ensured the safety and well-being of space vehicles and flight crews, both in the past and for years to come.

**David B. Harris of NASA Johnson Space Center** - For exceptional leadership in propulsion systems testing and facilities management.

### **Moh'd A. Hasan of Lockheed Martin Space Systems**

**Company** - Significant technology leadership to the Orion Project command and telemetry subsystem for the first test article and Ka-band subsystem.

**John M. Haworth of Pratt & Whitney Rocketdyne** - Lifelong service, dedication and devotion to the design, analysis and innovation of liquid rocket engines.

**James A. Kaminsky of The Boeing Company** - Outstanding support to America's space programs, including extensive contributions to space shuttle systems engineering and integration.

**Raj K. Kaul of NASA Marshall Space Flight Center** - Successful research and development of novel materials for use on space shuttle, Ares, and future propulsion systems.

**Paul Kharmats of Tech Trans International** - Outstanding program knowledge, skill as an international communicator, and dedication to promoting cooperation between the U.S. and its International Space Station (ISS) partners; ensuring safe collaborations in space, and enabling NASA to succeed as lead integrator for the ISS Program.

**Charles R. Knarr of United Space Alliance** - Outstanding leadership, dedication, and professionalism, providing 27 years of technical and organizational achievements and innovative contributions for space shuttle and ISS flight and mission operations.

**Fritz Kuck of Pratt & Whitney Rocketdyne** - Lifetime achievement for 37 years of exceptional vision, innovation and dedication in liquid rocket engine technology development and program leadership on numerous Rocketdyne engine programs.

**Christine E. Landis of Pratt & Whitney Rocketdyne** - Exceptional technical expertise and leadership as the chief software/hardware architect of a laboratory capability for acquisition and processing of data to assess the structural integrity of space shuttle main engines, and the upper stage systems for the Ares-I and Ares-V vehicles.

**Paul K. McConaughy of NASA Marshall Space Flight Center** - Technical excellence and significant accomplishments that directly contribute to the nation's future success in space, including missions to the International Space Station, the moon, and beyond.

**Larry B. McWhorter of The Boeing Company** - Exceptional career of devoted service to NASA Johnson Space Center and The Boeing Company, providing engineering leadership in support of human space flight objectives.



**James D. Milhoan of MEI Technologies, Inc.** - Excellence in and dedication to NASA human space flight programs in the area of thermal protection system development and testing.

**Robert W. Moorehead of NASA Glenn Research Center** - Unwavering commitment to effective and efficient leadership and continuous excellence in the development of space flight systems.

**Laurence A. Price of Lockheed Martin Space Systems Company** - Outstanding private-public partnership to develop a state-of-the-art testing and simulation facility supporting "test like you fly" development of the Orion crew exploration vehicle and other Constellation space exploration elements taking humans back to the moon and on to Mars.

**Lincoln J. Salvador of The Boeing Company** - Exceptional leadership, technical expertise, and integrity in overcoming numerous technical challenges as manager of orbiter mechanical systems.

**Jeffrey S. Schreiber of NASA Glenn Research Center** - Outstanding leadership and technical contributions in the development of a high-efficiency Stirling space power system, resulting in a major breakthrough in the specific power for NASA's next generation of radioisotope power systems.

**Douglas G. Schwaab of The Boeing Company** - Sustained outstanding contributions to the International Space Station Program in the fields of logistics supportability analysis, integrated vehicle performance analysis, and hardware/software integration.

**John W. Steele of the Hamilton Sundstrand Corporation** - Exceptional technical achievement and leadership in applying chemistry discipline expertise to oxygen and coolant systems of the extravehicular mobility unit, space shuttle and space station in support of human flight programs.

**Peggy E. Thomas of The Boeing Company** - Outstanding service to human space flight throughout a career dedicated to leading development and maintenance of high-quality software for mission control and for the International Space Station.

**Hung-Viet Truong-Cao of Lockheed Martin Mission Services** - Outstanding leadership and exceptional technical contributions to the design, development, and analysis of intravehicular equipment, extravehicular equipment, and environmental control and life support systems for ISS and the Orion crew exploration vehicle.

**Melba M. York of the ARES Corporation** - Sustained exceptional contributions and leadership in analyzing complex integrated technical and management systems and processes for both space shuttle and space station programs.

*"As we leave the moon at Taurus Littrow, we leave as we came and, God willing, as we shall return, with peace and hope for all mankind."*  
 —Apollo 17 commander Gene Cernan, the last human on the moon, December 14, 1972

ATK congratulates the Stellar Award winners and Eugene A. "Gene" Cernan—recipient of the 2008 National Space Trophy.

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## 2008 STELLAR AWARD NOMINEES - TEAM

Rotary National Award for Space Achievement

**Advanced Technology Center Solar Modeling Team of Lockheed Martin Space Systems Company** - Successful correlation of the solar magnetic field model to a complex data set from the Hinode satellite mission leading to a deeper understanding of methods required for reliable space weather forecasts.

**Ares I-X Roll Control System Team of Pratt & Whitney Rocketdyne** - Outstanding innovation and support to the successful design and development of the NASA Ares I-X roll control system.

**Cloudsat Project Team of NASA Jet Propulsion Laboratory** - Exceptional achievement by an international joint government, university and industry team in conceiving, designing, developing, and launching the CloudSat spacecraft that provides unprecedented three-dimensional perspective of Earth's clouds to answer questions about; how they form; evolve; and affect the weather, climate and fresh water supply.

**External Tank-124 Hail Damage Repair Team of Lockheed Martin Space Systems Company** - Outstanding team achievement on the repair of the space shuttle's external tank (ET-124) hail damage.

**External Tank Liquid Hydrogen and Oxygen Protuberance Air Load (PAL) Ramp Removal Team of the Lockheed Martin Space Systems Company** - Outstanding efforts supporting PAL Ramp elimination and resulting environments assessment.

**Extra Vehicular Activity (EVA) Capability Post-Shuttle-Retirement Team of the Hamilton Sundstrand Corporation** - Successful development and implementation of a plan that allows U.S. EVA capability to continue after the shuttle retires in 2010 in spite of prior shuttle dependence.

**Global Positioning System (GPS) Command and Control Transition Team of the United States Air Force** - Successful implementation of two new GPS ground control segments; the Architecture Evolution Plan; and the launch, anomaly resolution, and disposal operations system that allows modernized signal capabilities; and improved command and control while avoiding a gap in GPS launch, anomaly resolution and disposal capability.

**GOES-R Jitter Mitigation and Data Integrity Development Team of Lockheed Martin Space Systems Company** -

Outstanding team effort in developing a unique jitter-free approach for greatly improving data integrity and availability on GOES-R.

**Impact Test Facility Development Team of NASA Marshall Space Flight Center (MSFC)** - Superior efforts in expanding impact test capabilities to provide NASA/MSFC with the most versatile impact test facility in the county.

**Integrated Solar Array Constraints Working Group of Booz Allen Hamilton** - Exceptional support to NASA Mission Control by creating and maintaining a matrix of tradeoffs between International Space Station (ISS) solar power generation capability and associated loads concerns, contamination issues, and operational feasibility for the arrays in both normal and contingency operations.

**ISS Analyzing Interferometer for Ambient Air Implementation Team of Lockheed Martin Mission Services** - Successful test, integration and on-orbit execution of the joint European Space Agency/NASA ISS flight experiment "Analyzing Interferometer for Ambient Air," including meeting a shortened schedule and resolving early on-orbit anomalies to permit successful completion of the experiment on the ISS.

**ISS Flight Control Command and Control Release 6 Software Upgrade Team of NASA Johnson Space Center** - Successful on-orbit uplink of the International Space Station Command and Control Software Release 6 paving the way for the addition of the Node 2, Columbus, and Japanese Experiment Module (JEM).

**ISS Hardware Software Integration Team of The Boeing Company** - Outstanding dedication, professionalism, and technical excellence in support of ISS on-orbit operations and upcoming assembly missions, including international partner integration of the European Automated Transfer Vehicle 1, Columbus and JEM modules.

**ISS Joint Station Local Area Network Team of The Boeing Company** - Successful design, development, integration, testing and on-orbit deployment of the ISS joint station local area network that provides a high-speed, low-cost, Ethernet network for both operational and payload use throughout ISS, including U.S. and international partner modules.



**2007 Team Winners (L to R):** Joan Higginbotham (presenting), William Thomson for National Space Biomedical Research Institute Education and Outreach team, Sivaram Arepalli for ERC, Inc., Nanotube team, Gary Cooper for The Boeing Company's ISS Flight Software team, Gregory Vajdos for The Boeing Company's ISS Guidance Navigation and Control team, Thomas Duxbury for Jet Propulsion Lab's Stardust team, James Graf for Jet Propulsion Lab's Mars Reconnaissance Orbiter team, James Reilly, II (presenting). (NASA)

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Northrop Grumman Corporation is a proud supporter of the Rotary National Award for Space Achievement. We congratulate Neil deGrasse Tyson, whose work inspires us to reach for the stars, and Eugene Cernan, the last man to fly a Northrop Grumman lander to the moon.

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## 2008 STELLAR AWARD NOMINEES - TEAM (continued)

Rotary National Award for Space Achievement

**ISS Russian Computer Anomaly Resolution Team of The Boeing Company** - Excellent joint team effort to provide thorough, disciplined and timely engineering analysis and issue resolution to the ISS Russian segment computer anomaly.

**ISS Safety & Mission Assurance Probabilistic Risk Analysis Team of the ARES Corporation** - Outstanding efforts in revolutionizing the use of risk data for informed decision-making on the International Space Station.

**ISS Solar Array Wing Repair Team of The Boeing Company** - Outstanding effort to ensure successful repair and deployment of the ISS solar array by identifying the root cause of the torn wing, developing the repair, identifying materials available to build it on-orbit, and testing and verifying the repair--all within a 48-hour period.

**Japan Aerospace Exploration Agency (JAXA) H-II Transfer Vehicle (HTV) Team of ARES Corporation** - Outstanding leadership of the NASA effort to integrate the JAXA HTV into the International Space Station, including extensive work with international partners to drive the project toward a historic launch and berthing.

**Joint Functional Component Command for Space Breakup Analysis Team of the USAF, 1st Space Control Squadron** - Outstanding technical analysis while tracking and cataloging the largest satellite breakup in history--thus directly supporting the protection of more than 400 active satellites in low-Earth orbit, including the International Space Station.

**Joint NASA/National Science Foundation/ILC Dover Inflatable Habitat Technology Demonstration Team of NASA Johnson Space Center** - Successful design, construction and deployment of an inflatable structure to investigate and demonstrate concepts and technologies for future habitation in harsh environments, including Earth polar regions and other planetary surfaces.

**Low-Cost, High-Thrust Monopropellant RCS Engine Development Team of Pratt & Whitney Rocketdyne** - Outstanding multi-company teamwork overcoming technical and schedule challenges in developing simple, low-cost high-thrust monopropellant engine applicable to the NASA Crew Launch Vehicle Project.

**Mesoamerican Regional Visualization & Monitoring System Team of NASA Marshall Space Flight Center** - Effective demonstration of the goodwill of the American people by using NASA Earth observation satellites for environmental management and disaster response throughout the developing world.

**National Space Biomedical Research Institute Research Leadership Team of the National Space Biomedical Research Institute** - Outstanding leadership of an innovative national program to develop countermeasures, reduce biomedical risks associated with human spaceflight, and enhance health on Earth.

**Nondestructive Test Digital X-Ray Team of ATK Launch Systems** - Outstanding achievement in the design, development, and implementation of an efficient digital X-ray system for the inspection of reusable solid rocket motor components.

**Orbital Orion Program Support Team of the ARES Corporation** - Exceptional and comprehensive support of the hazard analysis for the Orion Project's launch abort system.

**Personal Computer Ground (PCG) Operations Aerospace Language 2 Team of United Space Alliance** - Outstanding innovation and technical excellence in developing and deploying PCG2, a state-of-the-art situational awareness tool, to the Shuttle Firing Room and shuttle engineering desktop workstations.

**Reusable Solid Rocket Motor Low-Temperature Seal Material Team of ATK Launch Systems** - Successful development and qualification for human-rated flight of a low-temperature seal material that dramatically extends operational temperature range and has the potential to revolutionize launch vehicle joint design.

**Six-Person ISS Crew Concept Team of Booz Allen Hamilton** - Outstanding teamwork focused on the operational concept for the transition of the International Space Station from a crew of three to a permanent crew of six.

**Space Exploration Development Laboratory Team of Lockheed Martin Space Systems Company** - Outstanding private-public partnership to develop a state-of-the-art testing and simulation facility supporting "test like you fly" development of the Orion vehicle and other Constellation space exploration elements taking humans back to the moon and on to Mars.

**Space Innovation and Development Center Spectral Imagery Applications Team of the United States Air Force** - Outstanding contribution to the development of future space-based hyper-spectral and polarimetric imagery technologies and procedures.

**Space Medicine Advanced Projects Team of Wyle** - Innovative development of the lightweight trauma module to support healthcare in space and on the battlefield.

**Space Test Program, Mission 1 Team of the United States Air Force** - Successful development, integration, test, launch, and operation of Space Test Program, Mission-1, combining six unique research satellites into an integrated payload stack, accomplishing numerous space technology "firsts," and paving the way for future low-cost multi-payload evolved expendable launch vehicle missions.

**Station Shuttle Power Transfer System Team of NASA Johnson Space Center** - Successful first flight of the station-shuttle power transfer system on STS-118, enabling up to three additional docked days at the International Space Station.

**STS-120/10A ISS P6 Solar Array Repair Team of MRI** - Successful development and implementation of an elegant plan to add structural "cuff links" to the ISS 4B solar array that allowed full array deployment during STS-120.

**Wideband Global Satellite Communications Space Vehicle-1 Launch and Mission Integration Team of the USAF Wideband Satellite Communications Group** - Successful development, launch, and operations of the first wideband global satellite, Space Vehicle-1, providing an exponential leap in satellite communications capabilities to U.S. national forces.

**Wing Leading Edge Impact Detection System Team of the Engineering and Science Contract** - Exceptional dedication, teamwork, and technical excellence in certifying, implementing, improving, and monitoring the wing leading edge impact detection system.



continued on next page.







# PREVIOUS NATIONAL SPACE TROPHY WINNERS

Rotary National Award for Space Achievement



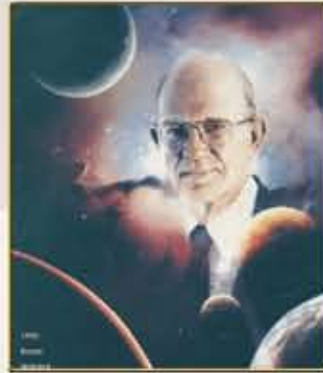
**1987**  
Dr. Maxime Faget



**1988**  
Hon. Don Fuqua



**1989**  
V. Adm. Richard Truly,  
USN (Ret.)



**1990**  
Dr. Lew Allen



**1999**  
Dr. Christopher  
C. Kraft, Jr.



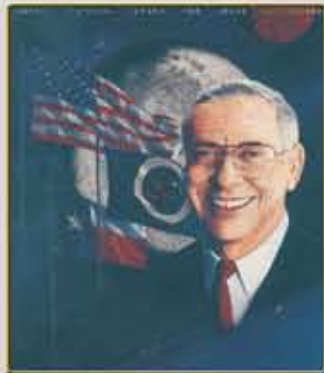
**2000**  
Capt. John W. Young,  
USN (Ret.)



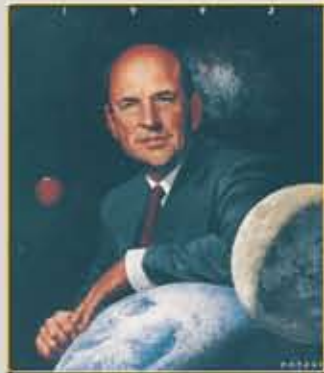
**2001**  
Tommy Holloway



**2002**  
Dr. George E. Mueller



**1991**  
Dr. Aaron Cohen



**1992**  
Dr. Norman R. Augustine



**1993**  
Lt. Gen. Thomas Stafford,  
USAF (Ret.)



**1994**  
Edward C. "Pete"  
Aldridge, Jr.



**2003**  
Roy S. Estess



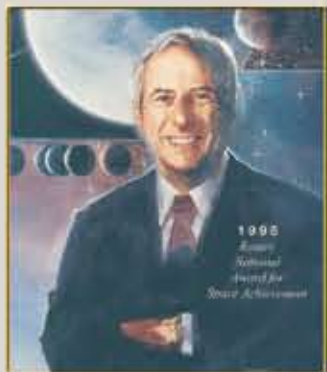
**2004**  
Neil A. Armstrong



**2005**  
Dr. Glynn S. Lunney



**2006**  
Col. Eileen Collins, USAF  
(Ret.)



**1995**  
Daniel Goldin



**1996**  
Capt. Robert L. Crippen,  
USN (Ret.)



**1997**  
George W.S. Abbey



**1998**  
President George H.W.  
Bush



**2007**  
Eugene F. "Gene" Kranz

Renowned space artist Pat Rawlings created the original art that graces the cover of this year's program book. Employed by SAIC, Rawlings painted the portrait for the first National Space Trophy winner in 1987, again in 1991, and for every winner since 2001. Rawlings makes scenes as accurate as possible by consulting with space experts, using computer models, topographical maps, and space and family photos. "Telling stories of space" says the artist "through imagery allows me to explore the connections between extraterrestrial locations, the history of space exploration and the possibilities of tomorrow's technology." Captain Cernan's portrait will be on display at Space Center Houston for the next year.



Pat Rawlings  
(Photo courtesy of SAIC).





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CONGRATULATIONS TO CAPT. EUGENE CERNAN FOR  
YOUR CONTRIBUTIONS AND DEDICATION TO EXPLORATION!





For taking us all to new heights.

Lockheed Martin congratulates Capt. Eugene Cernan and all the Stellar Award nominees.

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