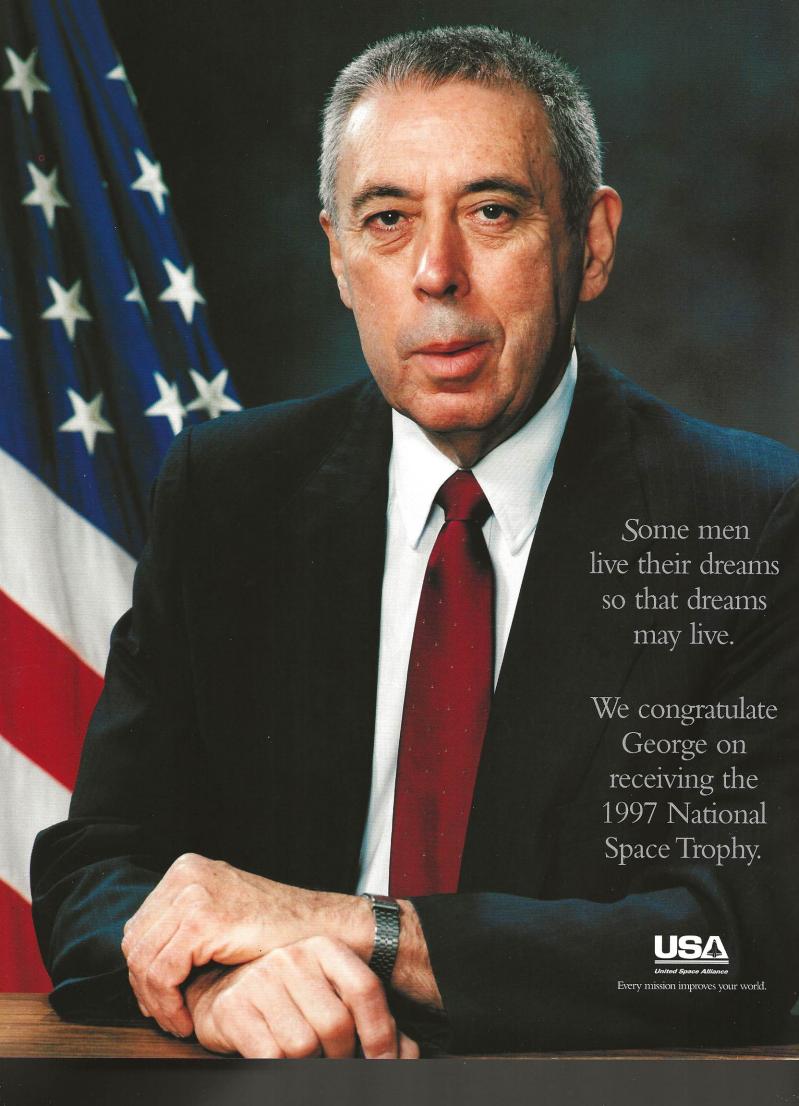
# 1997 Rotary National Award Space Achievement "Dreams to Destiny"



#### THE NATIONAL SPACE TROPHY RECIPIENT

The theme for this year's dinner is "Dreams to Destiny," and it is especially appropriate that George Abbey has been selected to receive the National Space Trophy. For more than three decades, Mr. Abbey has brought his energy and talents to bear on furthering the goals of America's space program. Visionary leadership, commitment to excellence, and dedication to the goals of space exploration have been the hallmarks of his outstanding career.

Mr. Abbey's reach for the stars began early in his life. After receiving his bachelor of science degree from the United States Naval Academy in 1954, he joined the Air Force where he accumulated more than 4,500 hours flying a variety of aircraft. He also received a master's degree from the Air Force Institute of Technology in 1959.

In his early association with the nation's space program, he served in management positions in the Air Force's DYNOSOAR program. Research from this program contributed to the lifting body technologies which evolved into designs for the X vehicles, one of which - the X-38 - is in work at the Johnson Space Center (JSC) today. He also served as a technical liaison between the Boeing Company and NASA's Langley Research Center on the Lunar Orbiter program.

In 1964 he was detailed to JSC (then the Manned Spacecraft Center), where he joined the Apollo program. He resigned his Air Force commission in 1967 to become a permanent part of the JSC staff as technical assistant to the manager of the Apollo Program, George M. Low. He served as the Program Manager's principal assistant, and his



George W. S. Abbey
Photo by J. Pamela Photography

efforts were crucial to the many successes of the Apollo era, including Apollo 8's circumnavigation of the moon, and Apollo 11's first landing on the moon in 1969.

After the successes of early Apollo missions, Mr. Abbey became technical assistant to the Director of JSC in December 1969. He quickly established himself as an integral part of the senior leadership of the Center, and his contributions in this role were numerous. His experience with international space missions began in the early 1970's, when he played a key role in the Apollo-Soyuz Test Program. He was also instrumental in organizing the Center in its transition to the Shuttle era, and played a key role in many of the institutional and technical decisions which shaped the Shuttle program.

In 1976, Mr. Abbey was assigned to the position of Director of Flight Operations, responsible for operational planning and overall direction and management of flight crew and mission control activities for all human space flight missions. His leadership during this era was particularly crucial, since it spanned the testing and operational phases of the Space Shuttle program. It was also during this period that NASA resumed, after a 9-year hiatus, the selection of astronauts for the civil space program. In 1977, Mr. Abbey formed the Astronaut Selection Board, serving as its chair, and in 1978 the first group of thirty-five Shuttle-era astronauts came aboard. Many of the astronauts selected in this group (and others that followed) have gone on to serve in major roles in NASA, the military, and the public sector.

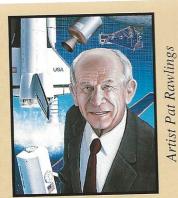
In a 1985 reorganization, Mr. Abbey became the director of the newly-formed Flight Crew Operations organization, responsible for selection, training and assignment of flight crews as well as management of the Center's aircraft programs. In this role, he continued to play a major role in Shuttle program development and operations.

In 1988, Mr. Abbey was appointed Deputy Associate Administrator for Space Flight at NASA Headquarters. In 1990, he was appointed Deputy for Operations for the Synthesis Group. On the twentieth anniversary of the first lunar landing, the President outlined a program to return to the Moon to stay, and for a human landing on Mars. The Synthesis Group, chaired by former astronaut Lt. Gen. Thomas P. Stafford, was charged with defining architectures and technologies necessary to accomplish those goals. Because of his extensive experience and vision, Mr. Abbey served as the senior NASA representative to the Group whose report is highly regarded for its thoroughness, scope, and inspirational vision of exploration of our solar system. Then-Vice President Dan Quayle called the report a "landmark contribution."

Later in 1991, the President appointed Mr. Abbey as Senior Director for Civil Space Policy on the National Space

Continued on page 4

1996 Robert L. Crippen



1987 Dr. Maxime Faget

**PREVIOUS** 

SPACE TROPHY

WINNERS



1988 Don Fuqua



Artist Rick Johnson

1989 V/Adm. Richard Truly



Artist Alan Chinchar

Artist Edward Diffenderfer

1995 Dan Goldin



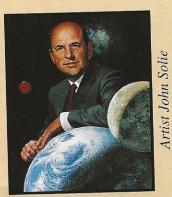
1994 E.C. "Pete" Aldridge

Artist Alan Chinchar

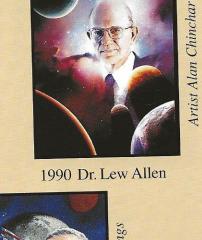




1993 Lt./Gen. Thomas Stafford



1992 Norman Augustine



1991 Aaron Cohen

Artist Pat Rawlings

- 2 -

# The University of Earth.



The International Space Station.

It will be the ultimate scientific research lab. Experiments that can't be performed on Earth due to gravity will open the doors to new discoveries that will advance the quality of our lives in numerous ways, and expand our knowledge of the universe in which we live.

And Thiokol will be there. Our reusable solid rocket motors will provide 80 percent of the initial boost propulsion needed by the space shuttle fleet to deliver the station's modules to orbit.

We have a solid business base in propulsion, and we're getting stronger.

The people of Thiokol salute George Abbey for his determined commitment and lasting contributions to the nation's space effort.

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**AEROSPACE & INDUSTRIAL TECHNOLOGIES** 

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#### THE NATIONAL SPACE TROPHY RECIPIENT

Continued from page 1

Council. In 1992, he became Special Assistant to NASA's new Administrator, Dan Goldin. Mr. Abbey served as a principal advisor to Mr. Goldin as the Agency responded to unprecedented government-wide streamlining initiatives. He also played a major role in establishing the partnerships and organization to build the International Space Station.

In 1994, he was appointed Deputy Director of JSC and led a number of important initiatives, including the most sweeping reorganization in JSC's history. He led a number of important efforts to more sharply focus the Center's attention on safety matters. Most importantly, he played a strong role in ensuring that JSC's institutional and technical resources were focused on the many challenges associated with Space Station and Shuttle.

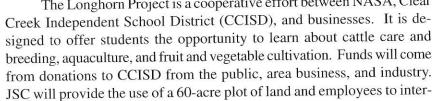
Mr. Goldin appointed Mr. Abbey as JSC's Director in January 1996. "Over the course of his eminent career with NASA, he has distinguished himself as an innovator and pioneer at all levels of agency management," Goldin stated. Shortly after Mr. Abbey's designation, the Agency adopted a "lead Center" management approach, increasing the breadth and scope of Mr. Abbey's role as Center Director as JSC assumed increased program management responsibility for Shuttle, International Space Station, and critical elements of NASA's life science programs.

Other key Center responsibilities include astromaterials, Phase I-Mir, Space Operations management, Human Exploration and Development of Space, and EVA technology. Managing these

> edented levels of international participation in today's space program. Beyond the challenges associated with managing the responsibilities assigned to JSC, Mr. Abbey has undertaken a number of efforts to build stronger community ties. Some examples of his initiatives include two very successful open houses, the JSC Inspection, which was designed to showcase the Center's technologies, facilities, and people to the business and commercial communities, and the Longhorn Project.

> responsibilities is made even more challenging because of the unprec-

The Longhorn Project is a cooperative effort between NASA, Clear



act with students. Mr. Abbey saw this as a way to support the community through the innovative application of existing resources. JSC already is involved in a number of scientific and educational efforts involving horticulture, development of synthetic soils to grow plants in space, and the use of plants to recycle water and air. This is another opportunity to bring NASA's high technology to bear on down-to-earth challenges.

While Mr. Abbey's responsibilities make for many long hours at work, he does have a number of outside interests. He is a strong supporter of Center extracurricular activities, and regularly attends chili, fajita, and other cookoffs and events. He is engaged on an on-going basis with the restoration of several "classic" automobiles, including a 1954 Oldsmobile, a 1969 Mustang, and a 1968 Mercury that belonged to his father. As time allows, he devotes much of his spare time to community events, including serving as the Grand Marshal of last year's St. Patrick's Day Parade in Houston.

Mr. Abbey has been recognized over the years for his outstanding accomplishments. He has received numerous awards and commendations from NASA, including the Distinguished Service Medal and Outstanding Leadership Medal. He received the Presidential Medal of Freedom as a result of his contributions to the Apollo 13 Mission Operations Team. And he has received two Presidential Rank Awards for his contributions as a member of the government's Senior Executive Service. Most recently, Mr. Abbey was honored by the Clear Lake Area Economic Development Foundation with its prestigious Quasar Award for his contributions to the economic vitality of the greater Clear Lake region.

"Mr. Abbey's reputation as one of the chief architects of our Nation's human space program is well known both nationally and internationally," one nominator stated. He deserves recognition for his ". . . exceptional vision, his superior leadership qualities, his unique and effective problem solving techniques, and his broad understanding of technical manage-

The groundwork Mr. Abbey is building for the future will indeed turn our dreams to destiny. The RNASA Foundation salutes his many contributions -- past, present, and future, to our space program.



MR. ABBEY IN MISSION CONTROL

NASA photo

## CONGRATULATIONS

To George Abbey

for

Outstanding Leadership
in Human Spaceflight

and

A Stellar Record of Community Involvement



NASA's Consolidation Partners



AlliedSignal Technical Services Corporation



**Computer Sciences Corporation** 

#### **MASTER OF CEREMONIES**



**Bill Bailey** 

The RNASA Foundation warmly welcomes Harris County Precinct 8 Constable Bill Bailey as our Master of Ceremonies.

Bailey grew up in Galena Park, Texas, and began radio announcing in high school. He became well known and loved by millions of listeners while working for KIKK and KENR in the Houston area. In 1979, the Country Music Association named him the Large Market Disc Jockey of the Year.

After 22 years of radio, Bailey was elected Constable of Precinct 8 in 1982. Precinct 8 covers twelve municipalities, including the area surrounding the Johnson Space Center.

Now in his fifth term, Constable Bailey is a leader in his profession and community. He is a member of five Chambers of Commerce, past President and Paul Harris Fellow of the Pasadena Rotary Club, a life member and former Director of the 100 Club of Houston, and a lifetime Vice President of the Houston Livestock Show and Rodeo.

As President of the Justice of the Peace and Constables Association of Texas, Bailey helped create the *Constables Desk Book*, a comprehensive "How To" book for constables all across the state. His precinct is consistently at the top among Harris County Constables in public safety and the clearing of hot check warrants. His files are filled with letters commending him and his deputies for their performance. Bailey was chosen as Pasadena Citizen of the Year in 1990.

A long-time horse owner, Constable Bailey has served as a volunteer for the last thirty-six Houston Rodeos. He and his wife Janis live in Pasadena.





#### **Dynacs proudly salutes**

George Abbey for his commitment to America's space program

> Dynacs Engineering Company, Inc. 1110 Nasa Road One, Suite 650 Houston, Texas 77058

#### PRESENTING THE STELLAR AWARDS



The RNASA Foundation is pleased to have Dr. Shannon Lucid participate in presentation of the Stellar Awards for space achievement. As the American record-holder for time in space, she serves as both a role model and a reminder of how to turn our dreams into our destiny in space.

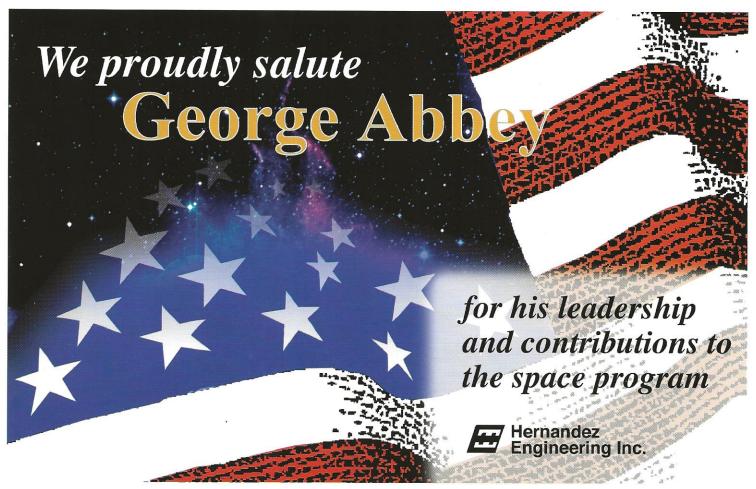
Lucid was born in Shanghai, China, but calls Bethany, Oklahoma, her hometown. She earned a bachelor's degree in chemistry from the University of Oklahoma in 1963, with a master's and doctorate in biochemistry following in 1970 and 1973.

In 1978, Lucid was selected as a member of the first class of astronauts to include women. Now a veteran of five space flights, Lucid has logged 5,354 hours (223 days) in space, setting a world record for a woman.

She served as a mission specialist on STS-51G (June 17-24, 1985) which deployed communications satellites for Mexico (Morelos), the Arab League (Arabsat), and the United States (AT&T Telstar). Her second flight was STS-34 (October 18-23, 1989), a 5-day mission which sent the Galileo spacecraft on its journey to explore Jupiter. Her third flight (STS-43, August 2-11, 1991) deployed the fifth Tracking and Data Relay Satellite (TDRS-E). STS-58 (October 18 to November 1, 1993) set a shuttle flight duration record at fourteen days. The mission was recognized by NASA management as the most successful and efficient Spacelab flight yet flown.

After a year of training in Star City, Russia, Lucid served as Board Engineer 2 on Russia's Space Station *Mir*. She launched March 22, 1996, aboard STS-76. Say-

ing she was going to miss working in a lab in space every day, she returned to Earth on September 26, 1996, aboard STS-79. Lucid and husband Michael have three grown children. A private pilot, she enjoys flying, camping, hiking, and reading.



#### PRESENTING THE CORONA AWARD



The RNASA Foundation is excited to have Air Force Captain and astronaut candidate Mike Fincke present the Corona Award for lifetime achievement to John Young, who chaired the Astronaut Selection Board that selected Fincke in 1996.

From Emsworth, Pennsylvania, Fincke graduated from Sewickley Academy in Pennsylvania in 1985. He attended MIT on an Air Force ROTC scholarship and graduated in 1989 with a degree in Aeronautics and Astronautics as well as a degree in Earth, Atmospheric and Planetary Sciences. He then received a master's in Aeronautics and Astronautics from Stanford University in 1990. Just after graduating from MIT, Fincke attended a summer exchange program with the Moscow Aviation Institute where he studied Cosmonautics.

After graduation from Stanford University, Fincke entered the US Air Force. He served as a Space Systems and a Space Test Engineer at the Air Force Space and Missiles Systems Center, Los Angeles Air Force Base in California.

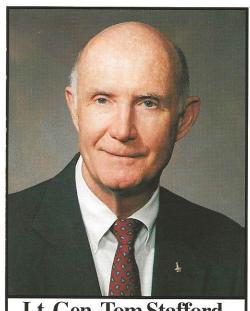
In 1994, he completed Air Force Test Pilot School at Edwards Air Force Base, receiving the USAF Test Pilot School Colonel Ray Jones Award as the top Flight Test Engineer/Flight Test Navigator in class 93B. He then joined the 39th Flight Test Squadron at Eglin Air Force Base in Florida serving as a Flight Test Engineer on a variety of programs. He has over 500 hours in over 30 different aircraft.

In January of 1996, he went to Japan as the US Flight Test Liaison to the Japanese/US XF-2 fighter program at Gifu Air Base. Fincke has earned two USAF Commendation Medals, a USAF Achievement Medal, and various unit and service awards for his work.

Fincke, who turns 30 next week, likes hiking, flying, travel, geology, astronomy, learning new languages, and reading.



#### PRESENTING THE NATIONAL SPACE TROPHY



Lt. Gen. Tom Stafford

Photo by Blunk Studios

The RNASA Foundation is delighted to have Lt. General Thomas P. Stafford, USAF (Ret.), the 1993 National Space Trophy winner, return to Houston to present this year's trophy to Mr. Abbey.

Stafford graduated with honors in 1952 from the US Naval Academy in Annapolis. He received his pilot wings at Connally AFB, Waco, Texas, in September 1953. His early career included piloting F-86Ds in Germany and being an instructor at the Air Force Test Pilot School at Edwards AFB.

He was one of the second group of astronauts selected by NASA in September 1962. He piloted Gemini VI (December 1965) which performed the world's first rendezvous in space. He commanded Gemini IX (June 1966) and Apollo 10 (May 1969). On Apollo 10 he flew the lunar module to within nine miles of the Moon's surface. During re-entry, Stafford achieved the highest speed ever attained by man at 28,547 mph.

As Head of the Astronaut Group in 1969, and Dep. Director of Flight Crew Operations at JSC in 1971, Stafford assigned crews and monitored training.

He logged his fourth space flight as Apollo Commander of the Apollo-Soyuz Test Project (July 15-24, 1975), a historic first meeting in space between American astronauts and Soviet cosmonauts.

Stafford assumed command of the Air Force Flight Test Center in 1975. He was promoted to Major and then Lieutenant General, and in 1978, became

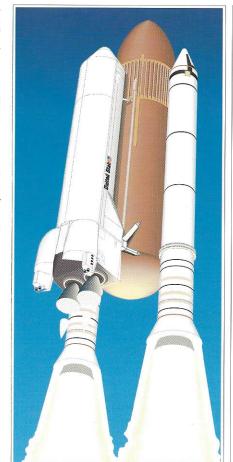
Deputy Chief of Staff, Research Development and Acquisition, Headquarters USAF, Washington, D.C. In a Chicago hotel in 1979, he wrote the initial specifications on a piece of hotel stationary for what became the B-2 Stealth Bomber. Stafford retired from the Air Force in November 1979.

In 1990, Stafford led a team to advise NASA on carrying out President Bush's vision of returning to the Moon and exploring Mars. Mr. Abbey served on Stafford's team which completed the study *America at the Threshold* in June 1991.

Stafford advised President Reagan, served on the National Research Council's Aeronautics & Space Engineering Board, the Committee on NASA Scientific and Technological Program Reviews, and the Space Policy Advisory Council.

A three-star General with over 507 hours in space, experience in over 127 different types of aircraft and helicopters, Stafford now sits on the Board of Directors of ten major corporations. He co-founded and is currently Vice Chairman of the technical consulting firm of Stafford, Burke, and Hecker, Inc. in Alexandria, Virginia, where he lives with his wife Linda.





Dual, Incorporated
would like to
extend our
congratulations
to
George Abbey
for his
outstanding
contributions to the
Space Program.

#### Rotary National Award for Space Achievement

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Note: Individuals listed without affiliations serve on the Board in their personal capacities only.

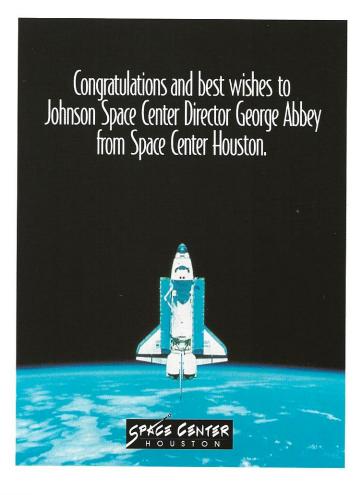
The National Space Trophy, designed by Steuben Glass of New York, is on permanent display at Space Center Houston. Weighing 500 pounds, it is him to be lead crystal. A thin white line spirals around the tall cone, etching our pathway to the stars and focusing our attention on the fragile bubble of life-supporting air in the tip.

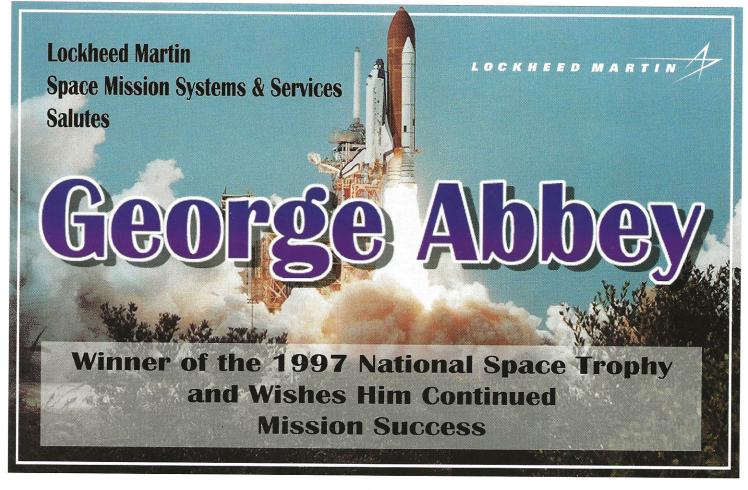
# SPACE COMMUNICATOR AWARD

The Rotary National Award for Space Achievement Foundation is proud to present the Space Communicator Award in memory of Stephen Gauvain, space journalist, to KTRK/Channel 13 for a decade of support to the Foundation in advancing the exploration of space through the use of its facilities and the talents and efforts of its employees.

Stephen Gauvain will long be remembered as a dedicated member of the RNASA Board of Advisors and for his immense knowledge of the nation's space program and space issues. During his career, Stephen Gauvain received the Aviation/Space Writer's Association Award for the Best Locally Produced Television Series for his report on NASA's road to recovery. The same series also won a second-place award for Investigative Reporting from the Houston Press Club. He was the Space Reporter for Channel 13 from 1984 until his untimely death in a car accident in 1996. He covered more than 60 Space Shuttle launches and was a quarter finalist in NASA's Journalist-in-Space program.

He produced a special video, "Above and Beyond," celebrating the many firsts in space, especially for the RNASA program last year. It will remain a tribute to his dedication to sharing the story of human space exploration.





# 1997 Rotary National Award for Space Achievement

ELEVENTH ANNUAL AWARDS BANQUET

Thursday, March 6, 1997

6:30 - 7:30 **Reception** 

7:30
Welcome
Michael Dennard
Chairman, RNASA Foundation

**Presentation of the Colors** 

National Anthem
Thom Hemans, soloist

Invocation

Dr. David Fannin

Pastor, Nassau Bay Baptist Church

Dinner

### Dreams to Destiny

#### ELEVENTH ANNUAL AWARDS PROGRAM

8:30 Video Introduction

Master of Ceremonies
Bill Bailey
Constable, Precinct 8

Space Communicator Award
Michael Dennard
Chairman, RNASA Foundation

Space Technology Utilization Award
Daniel S. Goldin
NASA Administrator

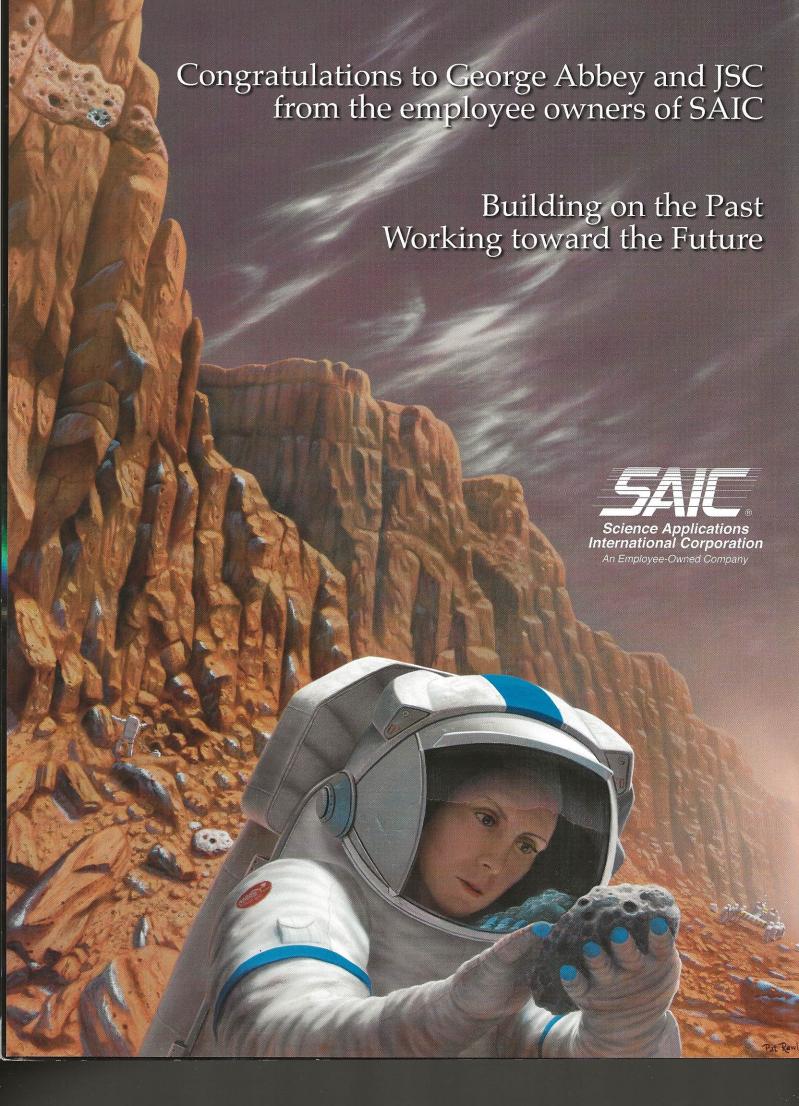
**Presentation of the Stellar Awards**Bill Bailey with Shannon Lucid, NASA Astronaut

Corona Award for Lifetime Achievement
E. Michael Fincke
NASA Astronaut Candidate

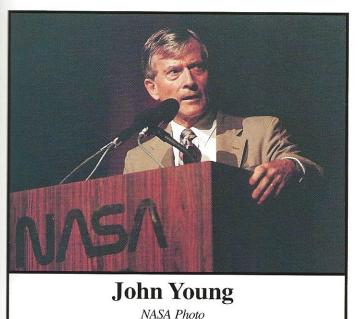
Presentation of the National Space Trophy
Lt. Gen. Thomas P. Stafford
Vice Chairman, Stafford, Burke, and Hecker, Inc.

Closing
Bill Bailey

9:30
Dance
Music by Max Q
(Coffee and Cash Bar available)



#### CORONA AWARD FOR LIFE TIME ACHIEVEMENT



The Corona Award recognizes a distinguished lifetime of achievement in the exploration of space, a lifetime exemplified by the service of Captain John Young. John Young holds the longest active-duty tenure of any United States' spacefarer and probably is the most experienced space pilot in the world.

Young shares the record for most spaceflight missions and is the only human to fly in every US spacecraft since Mercury. He traveled to the Moon twice and became one of only twelve humans to walk its surface. A 'test pilot's test pilot,' Young accomplished many vital firsts in space, highlighted by the inaugural flight of the Space Shuttle.

Respected not only for his keen piloting skills, Young's engineering contributions to the US space program are substantial. His expertise in aerodynamics, flight control and orbital operations advanced critical Apollo and Shuttle designs and aided our

achievement of President Kennedy's lunar landing goal.

Perhaps this unparalleled experience is the rea-

son his colleagues listen so attentively to John Young, or maybe they listen because they do not want to miss any of his trademark quips. "My only regret about STS-1 is that I didn't jot down John's one-liners. I would have made a fortune publishing them," says crew mate Robert Crippen. "John Young memos are legendary," Crippen adds. "He would write these detailed memos when we screwed up, and I think I kept them all. If John Young worried about something, you had better look into it."

Because of his dry wit and demeanor, John Young often strikes associates as 'a country boy' when, in fact, he was born in a major metropolitan city, San Francisco, California, and was raised in Orlando, Florida, not exactly a backwater town. Growing up, Young often could be found sketching pictures of airplanes and rockets.

After graduating from Orlando High School, Young studied aeronautical engineering at Georgia Tech, receiving a bachelor of science degree with highest honors. Ironically, during one summer vacation, Young worked on a surveying team in the scrub pines, palmettos and mosquitoes at Cape Canaveral, years before NASA or a human spaceflight program existed.

With graduation, Young joined the US Navy, entered flight training and was assigned to the Naval Air Test Center for three years where he evaluated the Crusader and Phantom fighters. In 1962, he set two world time-to-climb altitude records in an F4 Phantom. Prior to joining NASA, he served as maintenance officer in an all-weather Phantom squadron in Miramar, California, an assignment he described as "the best job in the Navy." Young retired as a captain from the Navy in 1976, after completing nearly 25 years of active military service.

In September 1962, Young was named to the second group of NASA astronauts and became the first of his class to fly in space as pilot aboard the new two-person Gemini spacecraft. During the three-orbit Gemini 3 mission, commander Gus Grissom and pilot Young proved the space worthiness of the Gemini spacecraft, including the first manual orbit altitude and plane changes, the first lifting reentry, and the first on-board computer operation — critical procedures for future lunar landings.

On Gemini 10 in July 1966, commander Young and pilot Michael Collins completed

Gemini 3 Launch

NASA Photo

Continued on page 17



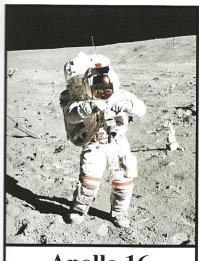
Hughes Space and Communications Company is proud to be building the next generation of TDRS satellites and to support NASA's space exploration goals.

HSC congratulates George Abbey on receiving the Rotary International Award for Space Achievement.



#### CORONA AWARD WINNER

Continued from page 15



Apollo 16
NASA Photo

rendezvous with two separate Agena target vehicles and, while docked, used the Agena main engine to boost their orbit to a then-record 475 miles, again demonstrating capabilities necessary for human operations in space.

As command module pilot for the Apollo 10 lunar landing dress rehearsal, Young docked the command module *Charlie Brown* with the lunar lander *Snoopy* carrying crew mates Tom Stafford and Gene Cernan.

Three years later, in April 1972, John Young left his boot print on the Moon announcing, "Here we are, mysterious and unknown Decartes highland plains: Apollo 16 is going to change your image!" He, his fellow moonwalker Charlie Duke along with command module pilot Ken Mattingly did just that, returning more than 200 pounds of lunar rocks from three exploratory traverses.

During the Apollo 16 mission, Congress passed a new space budget that included funding for a reusable winged aerospace plane — the Space Shuttle. Young headed the Space Shuttle branch of the Astronaut Office that supported orbiter design and development. From 1974 to 1987, Young served as Chief of the Astronaut Office. During his tenure, flight crews participated in the Apollo-Soyuz docking, the Shuttle Orbiter Approach and Landing Tests, and 25 Shuttle missions.

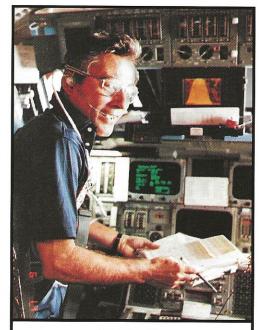
On April 12, 1981, exactly 20 years to the day cosmonaut Yuri Gagarin became the first human in space, the Space Shuttle Columbia rocketed from the Kennedy Space Center, the first piloted vehicle ever tested in space without previous unmanned trials. Commander Young and rookie pilot Robert Crippen verified more than 130

test objectives of the new spaceship. Young manually flew the winged, 98-ton orbiter to a historic runway landing on the Edwards Air Force Base dry lake bed. At wheel-stop, JSC Director Dr. Christopher Kraft told flight controllers in Mission Control that because of the successful flight of STS-1, "We have just become infinitely smarter."

Young commanded his sixth flight, STS-9, launched in November 1983, on the first Spacelab mission. Spacelab, built by the European Space Agency, included the first non-US payload specialist, West Germany's Ulf Merbold. Working for ten days in two shifts around the clock, the STS-9 crew returned more scientific and technical data than all the previous Apollo and Skylab missions combined. Young, however, tended to the flight deck because, as he put it, "Every time I came into Spacelab they wanted to draw my blood." Young landed the 110-ton Columbia with its reusable Spacelab at Edwards Air Force Base on December 8, 1983.

With his sixth mission, Young has logged 835 hours of spaceflight time as well as more than 13,000 hours flying props, jets, helicopters and rocket jets. Still an active duty astronaut, he has put more than 15,000 hours into training.

From May 1987 to February 1996, Young served as Special Assistant to the JSC Director for Engineering, Operations and Safety responsible for defining and resolving safety issues related to the Shuttle, International Space Station and advanced human space exploration. Currently, he is Associate Director (Technical) responsible for technical, operational and safety oversight of all spaceflight programs at Johnson Space Center.



STS-9
NASA Photo

Young has been honored with nearly 100 prestigious aerospace awards, including four honorary doctorate degrees. He is one of only ten astronauts to receive the Congressional Space Medal of Honor awarded by the President. He has received numerous NASA medals for distinguished service and outstanding achievements. He earned his Navy astronaut wings as well as two Navy Distinguished Service Medals and three Distinguished Flying Crosses. Young is the recipient of the American Astronautical Society Space Flight Award and was inducted into the National Aviation Hall of Fame in 1988.

For his three decades of dedicated service to human spaceflight, the RNASA Foundation is pleased to recognize John Young with its Corona Award.

#### SPACE TECHNOLOGY UTILIZATION AWARD



**Dr. Michael DeBakey** (right) shows heart pump to two technicians at JSC NASA Photo

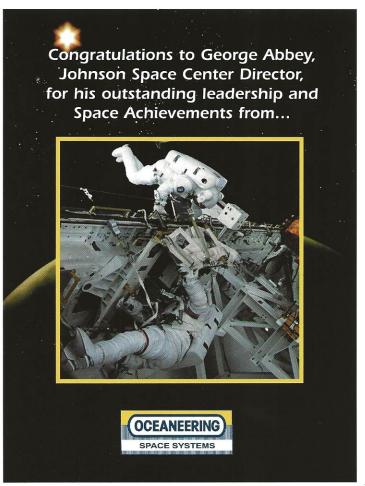
The RNASA Foundation is proud to present the 1997 Technology Utilization Award to Michael E. DeBakey, M.D. for the innovative application of space technology to the benefit of mankind.

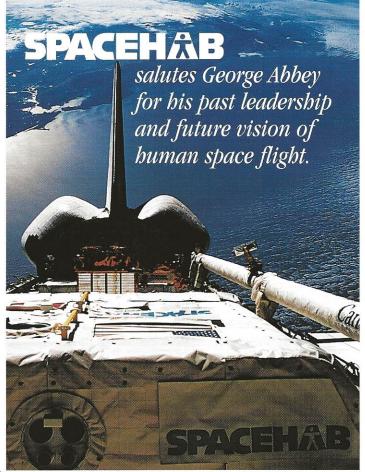
DeBakey is chancellor emeritus of Baylor College of Medicine, Olga Keith Wiess & Distinguished Service Professor of Surgery, and Director of The DeBakey Heart Center of Baylor and the Methodist Hospital. He has earned world renown as a surgeon, innovator, medical educator, and international medical statesman. While still a student, he devised a pump that later became one of the essential components of the heart-lung machine that made open-heart surgery possible. He has since developed over 50 surgical instruments.

One of these instruments is the focus of the RNASA Award: the NASA/DeBakey Heart Pump. This compact device has only one moving part and no shaft seals. It provides 5 liters/min. of blood flow and uses under 10 Watts. It is intended as an implantable heart assist device for the nearly 60,000 patients a year awaiting transplants. It is especially well-suited for children whose chest cavities are too small for the large, complex designs currently on the market.

The design resulted from a cooperative effort between NASA and DeBakey's team at Baylor. The basic concepts for the electrical and hydrodynamics' aspects of the pump and controller were conceived by NASA engineers. Additionally, software developed for the Space Shuttle turbo-pump was used to help design some of the subtle details of the pump.

A license was recently granted to commercialize the NASA/DeBakey heart pump technology. Already, it has demonstrated one month of continuous operation in calf testing at Baylor. Long term implantation tests are under way.





#### INDIVIDUAL STELLAR AWARD NOMINEES

#### RECENT GRADUATE NOMINEES

**Amukwatsibwoha Lindsey Alibaruho** - Lead Flight Controller supporting the operation of the International Space Station Environmental Control & Life Support System - Johnson Space Center

Melissa Collins - Instructional developer creating computer based training for use in crew on-orbit training - Hughes Training, Inc.

**Neil W. Lemmons** - Traffic planner for International Space Station responsible for ensuring that the Station critical resupply needs are being met - United Space Alliance (USA)

**Jennifer D. Wagenknecht** - Leader in the application of state-ofthe-art methods for Critical Guidance, Navigation and Control System design and flight software development - Johnson Space Center

#### **EARLY CAREER NOMINEES**

Radel L. Bunker - For work in characterization of explosions and detonations resulting from mixing hypergolic and cryogenic propellants - Johnson Space Center, White Sands Test Facility

Mark A. Darty - For work in achieving breakthroughs in advanced body integral computing systems - McDonnell Douglas/Huntsville

Lt. Christopher Dennis - For analyzing and developing Navy programs in space communications - U. S. Navy

Mark J. Fridye - For contributions in software design and development in support of the Space Operations Contract - Barrios

**Peter Gaiser** - For leading efforts in Remote Sensing at the Naval Research Lab - U. S. Navy

**Alan Gannon** - For software architect for Space Station Training Facility Simulation Virtual Machine - Hughes Training, Inc.

Lamont Hames - For development of NASA's vigorous small business program - NASA Headquarters

**1st Lt. Kelly L. McJoynt** - For directing space operations in support of DoD spacecraft - U. S. Air Force Space Command

**David P. Rafferty** - For design, development, and test of the Commercial/Refrigerator/Incubation Module, the Nanosat and the Wake Shield Facility - GB Tech

**Tom Rivellini** - For development work on the Mars Pathfinder Program - Jet Propulsion Lab

Michelle A. Rucker - For leadership in hypervelocity impact testing for NASA - JSC, White Sands Test Facility

Michael P. Scardera - For leadership in the Air Force for setting the foundation for Comprehensive Space Architecture development and analysis - U. S. Air Force

**Daryl Schuck** - For leadership in development and preparation of EVA support hardware for Space Station missions - USA

**LCDR David G. Simpson** - For achievements as 'point man' for Military Satellite Communication requirements in the U. S. Navy - Naval Space Command

**David A. Smith** - For leading a team in developing and enabling Spacehab configuration to support Spacelab docking to the Mir Space Station - McDonnell Douglas/Huntsville

**Douglas E. Smith** - For work in bolted Assembly Design for the Reusable Solid Rocket Motor - Thiokol Corp.

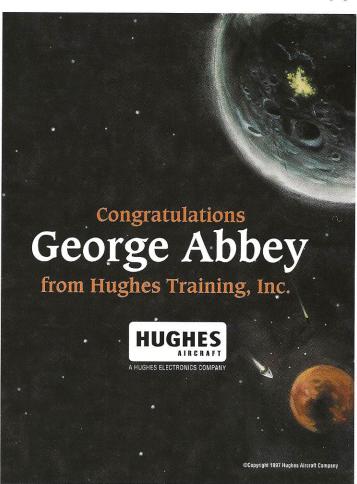
**Charles M. Stegemoeller** - For technical leadership of scientific hardware integration for the US Space Station's Phase 1A Prgm. - JSC

**C. Lee Weaver** - For leadership in developing robotics capabilities for Space Station Assembly flights - United Space Alliance

**Capt. Marsha Whitaker Wierschke** - For leadership in the Air Force Rocket Propulsion Technology Program - U. S. Air Force

**Joseph L. Williams, Jr.** - For work in Tethered Satellite Systems (TSS) flight training and for rehosting ground TSS software for STA-75 - United Space Alliance

continued next page



#### INDIVIDUAL STELLAR AWARD NOMINEES

#### Continued

#### MID-CAREER NOMINEES

**William R. Banks** - For technical support to the Shuttle Program's Television Working Group - USA

**Steven Bard** - For research and development leadership in Technology and Thermal Systems at JPL - Jet Propulsion Lab

**N. Talbot Brady** - For designing and developing critical embedded system flight software for the Galileo Project Command and Data Subsystem - JPL

**Hector J. De Los Santos** - For research and development on a wide variety of microwave circuits and as Senior Staff Engineer for the Hughes Advanced Electronics Operation - Hughes Space Co.

**William H. Gerstenmaier** - For work with the Russians in implementing NASA's long duration Mir increment while serving as the Operations Lead in the MCC - Moscow - JSC

**Sarath D. Gunapala** - For developing space and ground-based applications using quantum well infrared photodetectors - JPL

**Maj. Walter Hess** - For work in standardizing satellite operations within the DoD - U. S. Air Force Space Command

**Rhoda Shaller Hornstein** - For work in systems engineering, dual use of technology, and other innovative actions to support NASA's programs - NASA Headquarters

**Dan E. Jackson, Jr.** - For development of communications and tracking tools in support of the International Space Station - Barrios

**Siegfried W. Janson** - For conceiving, analyzing, and promoting a new way of building & utilizing spacecraft (Nanosatellite) - Aerospace Corp.

Mark S. Jennings - For leading in incorporating NASA requirements into the Mission Control Center - USA

 $\label{eq:hyoung-Man Kim - For research and development related to damage detection, model refinement, and flight experiments - McDonnell Douglas$ 

Mark S. Lumer - For Contract Management work in support of the Army Space & Strategic Defense Command - U. S. Army

**Guy Man** - For providing leadership to NASA's New Millennium Program Autonomy Integrated Product Development Team - JPL

**Joseph C. McAllister** - For leadership in ensuring successful operation of the Space Shuttle Orbiter Communication Systems - USA

**Jaime Milstein** - For software engineering in support of Landsat programs - Aerospace Corporation

continued next page



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. . . is proud to congratulate George W. S. Abbey on the 1997 Rotary National Award for Space Achievement

#### INDIVIDUAL STELLAR AWARD NOMINEES

#### Continued

William (JB) Neil - For work as Payload Integrator Engineer and Payload Safety Engineer for Shuttle Mid-deck and Cargo Bay Secondary Payloads - Muniz Engineering Inc.

**Brett T. Parrish** - For contributing in designing electronics hardware and software in support of JSC's programs - JSC

**Stephen E. Pease** - For developing and managing Space Surveillance Systems for the DoD - U. S. Air Force Space Command

Neal R. Pellis - For leadership in JSC's Biotechnology Program culminating in the successful flights of the Bio-reactor - JSC

**James A. Rooney** - For leadership in Technology Transfer and Commercialization at the Jet Propulsion Lab (JPL) - JPL

**John J. Rush** - For Space Data communications work at NASA - NASA Headquarters

**Joel M. Stoltzfus** - For developing a combustion test system for testing and understanding the ignition and combustion of metals and alloys in oxygen - JSC, White Sands Test Facility

Elizabeth B. VanBuskirk - For software systems analysis and evaluation to meet recommendations - U. S. Air Force Space Command

Louis S. Wheatcraft - For his work in launch operations planning

and integration on the Clementine Program - Barrios

**Peggy A. Whitson** - For her managerial and technical contributions to the Phase 1A Shuttle/Mir Science Program - JSC

Susan Widmer - For work in establishing Configuration Mgmt. Systems in support of current and future manned space projects - MRI

#### SENIOR CAREER NOMINEES

Roger A. Burke - For flight simulation work at NASA since 1966 - JSC

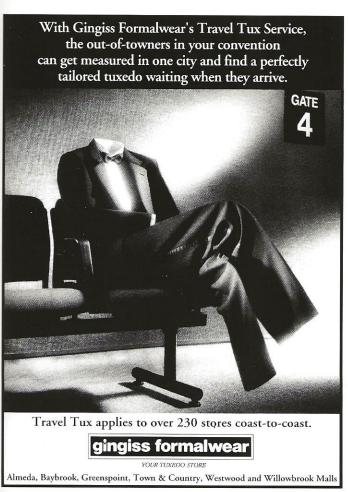
**John E. Estes** - For work in developing strategic programs that merge space sciences and mapping with public need - Univ. of Calif.

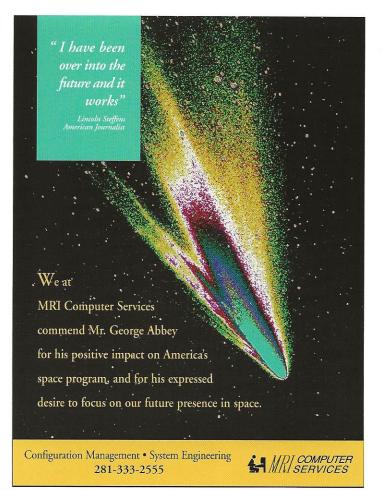
**Robert E. Freeland** - For determining the feasibility of inflatable systems for large space structures - JPL

**Garth A. Hull** - For developing NASA programs to train teachers in working with students at the primary, secondary, and university levels - NASA Ames

John W. O'Neill - For vision and leadership in NASA's space operations activities - JSC

**Louis J. Ullian** - For contributions to Space Launch Safety - U. S. Air Force Space Command





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#### STELLAR AWARD TEAM NOMINEES

#### **DirecPC Action Team**

Dept. of the Air Force, Air Force Space Command

DOL Margins Prediction Capability for High Inclination Rendezvous Missions Development Team
United Space Alliance

#### Evolved Expendable Launch Vehicle Requirements Team

Dept. of Air Force, Air Force Space Command

Flight Projects Group

KRUG Life Sciences

**Hughes Training Team at Johnson Space Center** 

**Hughes Training** 

Lunar/Mars Life Support Test Team

Johnson Space Center

Mir Engineering Design and Development Docking System Team Boeing

NASA/JPL Telerobotics Research and Development Team

Jet Propulsion Laboratory

**Neutral Buoyancy Lab Development Team** 

Johnson Space Center

Orbiter MPS, RCS, and APU Propulsion System Team

McDonnell Douglas

Phenomenology Exploration Program Team (PEP)

Department of the Air Force, Washington

Research Team on Evidence of Life in the Mars Meteorite

NASA Headquarters

Shuttle Trajectory Profile for Approaching Plume Sensitive Target Vehicles Development (R-Bar) Team

United Space Alliance

**Unigraphics/EDF/CAE Support Team** 

McDonnell Douglas

#### RNASA BOARD & COMMITTEE MEMBERS



The nonprofit Rotary National Award for Space Achievement (RNASA) Foundation was established in 1985 by the Space Center Rotary Club to organize and coordinate an annual awards event to recognize outstanding achievements in space and create greater public awareness of the benefits of space exploration. Proceeds from this year's event will be donated to a worthy educational program in honor of the winner.

Each year, people who have made a preeminent contribution to space exploration are nominated by government, industry, professional organizations, and individuals. A ballot is voted upon by the Foundation's Board of Advisors (page 10), leaders intimately involved in the space program. These confidential votes are tabulated by an independent accounting firm. The winner is presented with the National Space Trophy.

The Corona Award recognizes a distinguished lifetime of achievement in the exploration of space and is made only when the Foundation Board Members feel exceptional merit demands this special conferment. The Corona has been given only once before to Dr. Robert Gilruth in 1992.

The Foundation also selects individuals or groups for recognition via special awards such as this year's Space Communicator (page 11) and Technology Utilization (page 20) awards.

Nominations for Stellar Awards for individual and team achievements were solicited from NASA, the military, and industry leaders. In order to ensure recognition of individuals at all stages of their careers, nominations were solicited for four age categories: recent graduates (usually under age 25), people in their early careers (generally 26 to 35), mid-career employees (36-55), and senior employees (over 55). The nominations (pages 19-23) were reviewed by a panel whose decisions were based on which accomplishments hold the greatest promise for furthering future activities in space.

RNASA Foundation Board and Committee Members: <u>Back row, L to R</u>: Miguel A. Hernandez, Jr., Tom Short, Clay W. G. Fulcher, Tim C. Kropp, Charles H. Hartman, William L. Vantine, Floyd B. Bennett, Jeffrey E. Carr, Robert J. Wren.

Front row, L to R: Richard S. Johnston, Tom Kloves, Floyd V. Boze, Jack R. Lister (1997 Dinner Chairman), Michael D. Dennard (Board President), Ronald K. Blilie, Sandra G. Johnson, Gregory W. Hayes.

Not pictured: Jim C. Adamson, David Hamblin, J. W. "Bill" Lowes III (President, Space Center Rotary Club), Victor G. Maria, Robert W. Mitchell, Owen G. Morris, Charles A. Jacobson, and Billy Ray Smith.

Photo by J. Pamela Photography at Space Center Houston

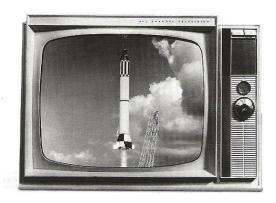
The RNASA Foundation expresses its appreciation to the following organizations for assistance in planning and conducting the 1997 Awards Dinner:

Barrios
Boeing
Clear Lake Economic Dev. Foundation
Johnson Engineering
Johnson Space Center
Max Q
McDonnell Douglas
MRI Computer Services
Space Center Houston
United Space Alliance

We also wish to thank the following distinguished individuals for their assistance in selecting this year's Stellar Award winners:

Pete Aldridge, George Bekey, Aaron Cohen, Max Faget, Chris Kraft, and Bill Muhlberger.

# OUR SPACE PROGRAM TOOK OFF ABOUT THE TIME GEORGE ABBEY CAME ON BOARD.



WHAT A COINCIDENCE.

Congratulations, George, and thanks. Your hard work is one reason our country continues to lead the world into space.

