

Goddard Space Flight Center Greenbelt, Md.

Vol. 28 no. 2 February 2, 1981

## 1980 Joint NASA/Goddard Honor Awards Ceremony held

The joint NASA/Goddard Honor Award Ceremony was held last month to honor award recipients. The following NASA Awards were presented: Outstanding Leadership Medal, Exceptional Scientific Achievement Medal, Exceptional Service Medal, Equal Employment Opportunity Medal, Group Achievement Award, and Public Service Group Achievement Award, and Public Service Group Achievement Award.

Goddard Awards presented at the

annual awards ceremony were as follows: Exceptional Performance Award, Outstanding Service Award, Equal Opportunity Award, Public Service Award, and Group Achievement Award. For record of previously recognized achievements the following awards were given: John C. Lindsay Memorial Award, Moe I. Schneebaum Memorial Award, and Annual Safety Awards.

Goddard Space Flight Center Performance Awards were presented as

Quality Step Increases and Special Achievement Awards. Awards for new technology went for Inventions and Contributions and Tech Briefs.

Awards were also given for Outstanding Performance Ratings, Masters of Engineering Administration Program, Three-Quarter Credit Graduate Study Program, Undergraduate Study Education Program, and Specialty Training for Entry Professional.

### **Outstanding Leadership Medal**

#### **Frank B. McDonald**

In recognition of outstanding leadership over the past 11 years as Chief of the Laboratory for High Energy Astrophysics of the Sciences Directorate of the Goddard Space Flight Center, in developing internationally recognized research groups in Gamma Ray Astronomy, X-ray Astronomy, and Cosmic Ray Physics.

#### **Helen M. Neumann**

In recognition of outstanding leadership in support of Goddard's flight projects by responding to and directing the solution of spacecraft technical problems during design, integration, test, launch, and operation. Her dedication, competence, initiative, and resourcefulness have contributed significantly to the success of many NASA missions.

### **Exceptional Scientific Achievement Medal**

#### **Larry H. Brace**

In recognition of unique scientific contributions to knowledge of the electron density, temperature and related properties of the ionospheres of the Earth and Venus resulting from pioneering Langmuir Probe measurements from a variety of spacecraft, including TIROS, early Explorers, Alouette, ISIS, Atmosphere Explorers and Pioneer Venus.

### **Exceptional Service Medal**

#### **Henry B. Benton**

In recognition of exceptional, dedicated, highly competent and consistent electronic and vacuum technician support of many satellite experiments conducted since the beginning of the space program.

#### **Peter A. Bracken**

In recognition of exceptional service while initiating and managing the development of advanced information extraction systems for remote sensing applications. Under his leadership, the Information Extraction Division has demonstrated the effectiveness of advanced data systems technology in support of NASA's Earth Observations Programs.



*Continued on next page*

## *Exceptional Service Medal (cont.)*

### **James S. Evans**

In recognition of his performance of duties, and management of The Delta West Coast Procurement Office (WCPO) resulting in the cost-effective acquisition of over 150 Delta launch vehicles spanning three decades of successful launch activity.

### **Elsie N. Ford**

In recognition of outstanding contributions to the Engineering Directorate through personal dedication, professional skill, and enthusiasm for all tasks undertaken regardless of complexity and magnitude.

### **Charles F. Fuechsel**

In recognition of outstanding technical contributions in the area of mission operations and data management and, specifically, for his dedicated efforts in developing the International Ultraviolet Explorer ground operational system.

### **James R. Greaves**

In recognition of exceptional performance of duties and management of the NASA contribution to the first GARP Global Experiment leading to the creation of the first comprehensive measurement of the earth's atmosphere and oceans.

### **Raymond G. Hartenstein**

In recognition of outstanding technical contributions in developing the Goddard on-board flight computer which has contributed so greatly to the success of many satellite programs.

### **James G. Marsh**

In recognition of exceptional contributions to NASA's solid-earth geophysics program and the success of the Seasat-1 mission in the development of models of the ocean geoid, ocean tides, sea surface topography, and the determination of the spacecraft orbit to accuracy levels not previously achieved.

### **Gilbert W. Ousley**

In recognition of overall management, and timely accomplishment of the highly successful and extremely productive MAGSAT Project, which has made significant contributions to our better understanding of the Earth's magnetic fields.

### **Henry W. Price**

In recognition of vital contributions made to NASA programs through considerable engineering expertise and judgment. His work has been a major factor in the successful accomplishment of many NASA programs.

### **James M. Williamson**

In recognition of his personal dedication to excellence of work and leadership in the development of methods, and sustained support to critical operations, thus ensuring the collection of vital scientific data from the crippled HCMM and SAGE spacecraft.

James S. Evans not pictured.



James G. Marsh not pictured.



## *Equal Employment Opportunity Medal*

### **Kathleen R. Hipkins**

In recognition of outstanding efforts to further equal opportunity as GSFC's Cooperative Education Program Coordinator. She displayed remarkable dedication, vitality, creativity, and spirit in making Goddard's COOP Program one of the most successful, well-functioning feeder programs of any NASA installation.

### **Anthony Walch, Jr.**

In recognition of exceptional performance and personal dedication in developing young minorities in skilled trades that are critical to improving the nation's productivity.



James M. Williamson accepting.



Ronald Kolenkiewicz accepting.



Harold Connell accepting.



Paul Wright accepting.

## *Group Award*

### **AEM HCMM/SAGE Operations Team Goddard Space Flight Center**

For devising and carrying out the in-orbit operational procedures which have saved both the HCMM and SAGE spacecraft from potentially devastating malfunctions and have maintained valuable scientific data acquisition operations beyond the design lifetime for both spacecraft.

### **Seasat Altimeter and Orbit Team**

In recognition of the exceptional contributions provided to the Seasat Project in the areas of precision orbit computation, altimeter calibration, sea surface, topography, station coordinates, and gravity field modeling.

## *Public Service Group Achievement Award*

### **Physical Science Laboratory New Mexico State University**

In recognition of the personal dedication and technical contributions to the NASA Sounding Rocket Program for more than 20 years. The Laboratory's support of more than 1500 launch operations has greatly contributed to the acquisition of space science data.

### **RCA Astro-Electronics**

In recognition of the technical excellence and management expertise that have led to the successful operation of TIROS meteorological satellites since April 1, 1960.

## *Exceptional Performance Award*

Robert F. Adler  
John W. Adolphsen  
Robert O. Bartlett  
William F. Cahill  
Dale W. Call  
Thomas A. Clark  
Lawrence L. Cook, Jr.

Robert L. DeFazio  
John J. DeLuca  
Michael D. Desch  
Keith D. Fellerman  
Madeline Justiniano  
Bonnie M. Kaiser  
Michael L. Kaiser

Nelson C. Maynard  
Hans G. Mayr  
Henry D. Obler  
Rosemarna S. Pajerski  
William A. Pfeiffer  
Eugenia K. Rivas  
Susan Roland

Dorothy J. Schlecht  
Thomas J. Schugge  
John J. Schwartz  
Margaret M. Stubbs  
Jean H. Swank  
Vaughn E. Turner  
Joseph P. Young

## *Outstanding Service Awards*

George J. Bergen  
Edward E. Bissell  
Charles J. Cambell  
Charles M. Cosner, Jr.  
James H. Donohue

Albert W. Dunnington  
John E. Firmin  
James D. Gemmell  
Kenneth R. Kirks  
George E. Kraft

Joseph A. Kueberth  
Donald L. Margolies  
Paul A. Murdock  
Charles R. Naegeli  
Joseph A. Oktavec

Stanford Ollendorf  
Coolie S. Reynolds  
Lonnie J. Rogers  
Harry E. Wannemacher, Jr.  
Charles E. White

## *Equal Opportunity Award*

Engineering Directorate  
*John H. Boeckel, Director*

## *Public Service Award*

Thomas A. Cygnarowicz  
David Fischel  
Robert E. Russey  
Valerie L. Thomas

## *Group Achievement Awards*

### *AE Project Operations Controllers*

### *Geodyn Development Team*

### *Direct Readout Team*

### *Presentation Section*

### *Domestic Information Display System Development Team*

### *Computer Sciences Corporation HEAO-2 CMS and AGSS Team*

### *Building 28 Design and Construction Team, Facilities Engineering Division*

### *Management Information Reports Section*

### *Materials Control and Applications Branch*

*Continued on next page*

## Group Achievement Awards (cont.)

<i>NASA 10<sup>8</sup> Bit Standard Tape Recorder</i>	<i>Performance Appraisal Core Team</i>	<i>Development Group</i>
<i>Network Support Managers</i>	<i>POMD Buildings 3/14 Missions Support Group</i>	<i>GOES-4 Flight Dynamics Support</i>
<i>Nimbus-6 RAMS Operations Team</i>		<i>Computing Team</i>
<i>Orbiting Astronomical Observatory (OAO-3) Project Operations Team</i>	<i>Westinghouse Electric Corporation HEAO-3 Control Center Implementation Team</i>	<i>M&amp;DOD Command/Management System Support Team</i>
		<i>Goddard Leadership Education Series</i>

## First Annual Goddard Safety Awards

Safety Award of Honor – John L. Millman

Safety Award of Merit – A. Edmund Fitch  
 Gerald Halpert  
 Raymond P. Harris  
 Harry B. Hull  
 James J. Kerley, Jr.  
 William F. Mitchell  
 William P. O'Leary

Accident Prevention Award –

Goddard Institute for Space Studies  
 Laboratory for Planetary Atmospheres  
 Mission Support Computing and Analysis Division  
 NASA Communications Division  
 Network Operations Division  
 Network Procedures and Evaluation Division

Contractor Safety Award –

Bendix Field Engineering Corporation  
 Charles E. Dimmitt  
 Theodore Knotts  
 Odie C. Woodall

Northrop Services, Inc. – Robert Lawson

### JOHN C. LINDSAY MEMORIAL AWARD – 1980

Thomas L. Cline and Reuven Ramaty

For their complementary roles in establishing the fast gamma ray transient of March 5, 1979, as a unique astrophysical event, and for proposing a theoretical interpretation in terms of physical processes occurring in a neutron star.

### MOE I. SCHNEEBAUER MEMORIAL AWARD – 1980

J. Larry King

For his leadership and contributions to the development of microwave radiometric sensors.

Contractor Accident Prevention Award

– Computer Sciences Corporation – Programming and Computer Service/NAS5-20640  
 Computer Sciences Corporation – STDN Programming Support/NAS5-22900  
 Computer Sciences Corporation – Systems Analysis and Programming/NAS5-24300  
 Computer Sciences Corporation – Systems Analysis and Programming/NAS5-24350  
 Sigma Data Services Corporation – Onsite Support Services/NAS5-25333

## Quality Step Increases

Mario H. Acuna	Richard J. Broderick	Ida L. Davidson	Walter B. Fowler	Marjorie E. Gustafson
Kelsey Adams	Charles S. Brown	Louise S. Day	David J. Fromme	Carl L. Haehner
Mary B. Adkins	Carol A. Burfoot	Joseph A. Dezio	Bill K. Gabbert	William E. Hahn
L. Henry Anderson	Valorie A. Burr	William B. Dickinson	Jacqueline A. Gasch	Dorothy K. Hall
Mary A. Azzolini	Leonard A. Calhoun	Richard E. Donnelly	William H. Gilchrist	Sheila A. Hall
Melvin D. Banks	James W. Chaoman, Sr.	James H. Donohue	Rosemarie F. Givens	Stuart L. Hanlein
Norman R. Beard	Gordon Chin	Donna D. Drummond	George E. Glunt	Mary A. Hartman
Edward A. Bielecki	JoAnn D. Clark	Leland L. Dubach	Robert D. Godfrey	Michael G. Hauser
Ronald W. Bierwagen	Carroll H. Clatterbuck	Patricia E. Dunn	Theodore C. Goldsmith	Paul Heffner
Edward E. Bissell, Jr.	Helmut P. Cline	Gretchen E. Evans	Jack J. Gottlieb	Donald J. Hei, Jr.
John J. Boggess	Charles M. Cosner, Jr.	William H. Eyster	John A. Grange	Frederick W. Herold
Harry M. Born	James A. Costrell	Lillian H. M. Fleenor	McLean M. Grant	Dennis R. Hewitt
John T. Bowerman	Robert J. Cummings	Marlene V. Forster	Joseph M. Grebowsky	

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## Quality Step Increases (cont.)

Richard P. Hockensmith	David C. Langjahr	Grace M. Miller	John C. Price	L. Larrabee Strow
Nancy R. Hodgens	Thomas A. Lavigna	George D. Mistretta	Jesse J. Purvis	Locke M. Stuart
Joseph M. Holley	John P. Lawrence	Helen M. Mitchell	Paul M. Rall	Jean H. Swank
David R. Howell	John D. Laws	David P. Moede	Linda M. Reed	John J. Sween, Jr.
Richard R. Hultberg	Roland F. Leland	James V. Moore	Michael Roberto, Jr.	Jack C. Tebay
Helena G. Hungerford	Franz J. Lengenfelder	James L. Mueller	Edward B. Rodgers	Edward F. Thomas
Floyd H. Hunsaker	John G. Lesko, Jr.	Benjamin Norcia	G. Ernest Rodriguez	Lyle E. Tiffany
John J. Jacintho	Frederick C. Leyh	James C. Novaco	Eugenia K. Rivas	Joseph L. Tinsley
James A. Jackson	Patricia C. Lightfoot	Lawrence V. Novak	Vincent V. Salomonson	Bradford Torain
Bertrand L. Johnson, Jr.	Anthony A. Longo	John E. Oberright	Larry W. Sapper	Thomas C. Underwood, Jr.
Robert E. Jones	Joseph J. Lopez	Henry D. Obler	Elizabeth C. Savoy	Peter H. Van Wie
Warren D. Jones	John W. Lovelace	Richard Ormsby	R. B. Saxton	John C. Voelkel
Milton W. Kalet	Dino Machi	John F. Osantowski	Christopher K. Scherer	David W. Walser
Linda S. Kelley	William F. Mack	Howard K. Ottenstein	Ronald A. Seiss	Schuyler C. Wardrip
Patrick M. Kelly	Catherine Mackey	Rosemarna S. Pajerski	Bruno Seppi	Oscar Weinstein
Lucille F. Kessler	William O. Macoughtry, III	John Pandelides	Ellen P. Seufert	John L. Westrom
Robert A. Kichak	James B. Mason	Brenda A. Parkinson	Frances V. Shepherd	Carl K. Wilbert
Jan A. King	Timothy P. McCain	John C. Pearl	Donald T. Silbert	Robert J. Wilkinson
Michael D. King	Kenneth D. McDonald	James E. Phenix	Edward Smigocki	Gail S. Williams
Howard I. Kingman	Richard D. McPeters	Anthony J. Pierro	Rodney S. Spencer	Donald E. Witten
Kenneth R. Kirks	Dillard Menchan	Sylvan Pinsky	Norman H. Schutzberger	John J. Wolf
C. Laurence Korb	Ronald H. Mentzer	Jean M. Plitt	Wayne P. Sours	Charles E. Woodyard
John D. Kraft	Ann C. Merwarth	James W. Poland	Edwin J. Skolka	John J. Zaniewski
George P. Kramer	Phillip D. Merwarth	Woodrow W. Poland	O. Glenn Staley	
William S. Kramer	Robin Mohr	Robert A. Porter	Alfred K. Stober	
Kent A. Kwiatkowski	Vernon W. Mielke	Kent F. Potter	Richard S. Stolarski	

## Masters of Engineering Administration Program

Andrew G. Barr	Henry J. Franks
James S. Barrowman	Morton L. Friedman
Richard J. Broderick	Daniel T. Grant
Gerald L. Burdett	James P. Gary
Richard K. Buehler	Arun K. Guha
Richard H. Carter	John M. Hayes
Stanley Y. Chan	Eugene L. Horn
John T. Dalton	John F. Laudadio
Kenneth I. Duck	Thomas A. LaVigna
Robert A. Felix	Blake T. Lorenz

William O. Macoughtry
Donald L. Margolies
Robert W. McIntyre
Lawrence V. Novak
Maurice A. Nygaard
John Pandelides
Steward D. Portas
Francis L. Stetina
Gary Wolford

## Undergraduate Study Education Program

Edward J. Brosnan
Carol A. Burfoot
Cynthia Dawkins
Gretchen E. Evans
Donna S. Foltz
Gloria J. Goodman
Cheryl A. Hampl
Jane A. Reinoehl
Debra A. Worley

## Goddard Performance Awards - Special Achievement Awards

Nancy Abell	Michael G. Armstrong, Sr.
Azizollah Abrishamian	Raimonde C. Aubrey
Warren Adams	Elizabeth J. Austin
Ronald E. Adkins	Richard A. Austin
James E. Akers	Richard D. Austin
Maksim Alexandrov	Thomas W. Austin
Gail D. Allen	David A. Baer
Pamela L. Allen	Raymond W. Baker
Richard J. Allenby	Jerome A. Barber, Sr.
Walter P. Allison	Andrew G. Barr
James F. Andary	Francis J. Barrett
Delmar H. Arbogast	Robert O. Bartlett
Peter D. Argentiero	Margaret E. Barton

Howard M. Becroft
Brent J. Bennett
Monique R. Benns
Henry B. Benton
Joseph W. Bentley
Edward A. Berg
George J. Bergen
Michael J. Berzonsky
William S. Bethea
Victoria C. Beverly
Elizabeth E. Beyer
David B. Bickers
James B. Billingsley

Linda J. Bingham
Thomas J. Birmingham
Kelly M. Blackstock
Kermitt B. Blaney
Herbert W. Blodget
Beatrice S. Bocuccci
William J. Bolster
Carole J. Boudrot
Paul C. Boudrot
Joseph B. Bourne
Donald E. Bower
Pamela C. Bowling
William B. Boyer

Robert L. Bridgers
Elaine S. Brown
June M. Brown
Stephen K. Brown
Anthony G. Brozena
Sandra P. Bruce
Lloyd R. Bruck
Sandra A. Buffalano
David Buhl
Bernard M. Burda
Gerald L. Burdett
Harry C. Burke, Jr.
<i>Continued on next page</i>

## Special Achievement Awards (cont.)

Peter T. Burr	Charles T. Force	Andrew W. Huntress	Richard S. Marriott	B. Robert Pincus
Stella M. Burress	Jennie E. Frangioni	Mary P. Hutchings	Maggie J. Marshall	Norman J. Piterski
Grettchen A. Burton	Herbert V. Frey	Anna L. Hutchinson	James P. Marshburn	Judith Poppe
Dale W. Call	Kenneth T. Frost	Louise A. Hysan	JoAnne Martin	Shirley V. Ponder
William J. Campbell	Philip E. Frustace	Kenneth W. Iobst	Hans G. Mayr	Karen W. Posey
Donald J. Capretti	Glenn C. Fuller	W. William Ingerski	Debora L. McCallum	Kent F. Potter
Timothy W. Carnaham	Edward M. Gaddy	Robert B. Jackson	Dennis K. McCarthy	Robin L. Prather
Cheri A. Carrick	Bertrand D. Gagnon	Kenneth F. Jacobs	Thomas R. McCormick	Barbara A. Pratt
Anthony J. Caruso	Marjorie C. Gallagher		Kenneth D. McDonald	Samuel E. Preecs
William R. Case	Benita O. Garcia	Robert E. Jenkins	David E. McGlew	V. Sue Prevost
John J. Celmer	John M. Garrett	Bernard L. Johnson	Nicholas V. Mejia, Jr.	Kenneth E. Purcell
Frank J. Cepollina	Jacqueline A. Gasch	John C. Johnson, Jr.	David R. Menges	James W. Pusey
Alfred T. Chang	Morris Gelman	Michael R. Johnson	Martin D. Menton, Jr.	Hamparuram K.
Kay S. Church	George G. Gerondakis	Gordon L. Jones	Ann C. Merwarth	Ramapriyan
Richard L. Collins	Joseph A. Gillis	Seymor Kant	Robert C. Miara	Maie K. Randolph
David A. Coolidge	Maria E. Goins	Donald C. Kaufmann	Theodore J. Michalek	Thomas H. Ratliff, Jr.
Bernard S. Coski	Walter A. Goodale	David I. Kayman	Ronald B. Miller	John V. Rende
Harry R. Costlow	Gloria J. Goodman	Leonard W. Kayton	Charles R. Miller	Gerald D. Repass
Roy L. Courtney	Yvonne K. Gourley	Frank A. Keipert	James E. Milligan	David C. Rice
Celeste M. Dalton	Kevin J. Grady	John W. Kelly	John L. Millman	Stephen H. Rice
Evmenios P. Damon	McLean M. Grant	Patrick M. Kelly	Nona K. Minnifield	M. Gayle Richardson
Angelo T. Dannessa	Robert L. Grigsby	Dawn M. Kennard	William H. Mish	Delores T. Richter
Shirley E. Darby	Connie K. Gross	Florence D. Kenny	Robin Mohr	Michael P. Riley
Ida L. Davidson	Robert T. Groves	Peter J. Kenny	Elaine C. Montgomery	Leon E. Ringler
John F. Davis	Marciano Guarin	Robert A. Kichak	Alberta C. Moran	William H. Robinson
Louise S. Day	Arun K. Guha	Henry L. Kingwood	Seavey D. Morse	Edward B. Rodgers
Adelaide A. DelFrate	James R. Hagemeyer	Bradley K. Kline	Leland R. Murphy	Guillermo E. Rodriguez
Denise A. Delss	Frederick W. Hager	Vivian K. Kujawski	Ronald M. Muller	John F. Rogers
Daniel W. Dembrow	Gerald Halpert	Frederick J. Kull	Robert W. Nance	Lonnie J. Rogers
Mary L. DesJardins	Sterling L. Hammond	Michael J. Ladomirak	Phillip A. Newman	Wilmer B. Rogers
Michael J. Devett	Cheryl A. Hampl	Walter LaFleur	Francis A. O'Grady	Jan Rychlik
John F. Devlin	Richard V. Hanold	John C. Lallande, Jr.	William P. O'Leary	George A. Ryskewich
Raymond W. DiSilvestre	Ralph H. Harms	William A. Landymore	Peter E. O'Neill, Jr.	Robert G. Sanford
John L. Donley	Richard S. Harner	John H. Lane	Robert W. O'Steen	Bruno Seppi
Gully C. Dowdy	Dan N. Harpold	Robert A. Langel	Arnold G. Oakes	Ellen P. Seufert
Harry J. Doyle	George H. Harris	Lavada J. Lankford	Arthur F. Obenschain	Franklin A. Shaffer
Elmira A. Drabik	Dale W. Harris	Edward A. Lawless	Keith W. Ogilvie	Gwendolyn Sharps
Charles F. Duffy	Raymond G. Hartenstein	Francis J. Lawrence	Alton D. Payne	Robert E. Shelley
Ronald W. Durachka	Mary A. Hartman	Carl L. Lazerow	Alfred P. Ostrander	Mary E. Shoe
William L. Eichhorn	Arthur P. Hasler	Roger H. Ledoux	Franklin W. Ottens	Nicholas M. Short
William G. Elsen	Paul J. Hefferman	Thomas V. Lee	Gilbert W. Ousley	David J. Shrewsberry
Gabriel L. Epstein	Donald D. Henderson	Danny L. Lester	Walter L. Owens	Allan D. Silver
Virginia G. Estes	Rebecca J. Herbert	Mary E. Leszcz	Charles F. Palandati, Jr.	Jerry W. Simpson
William H. Eyster	Paul E. Henley	Alan J. Levine	Marion B. Palmisano	Kenneth O. Sizemore
Winfield H. Farthing	Howard Herzig	Diane L. Lewis	John Pandelides	William C. Skillman
Richard J. Fedorchak	Raymond D. Hesson, Sr.	Beverly A. Lewoc	Lucille W. Parker	Luther W. Slifer, Jr.
Katherine A. Felix	Floretta N. Hickle	Francis J. Logan	Brenda A. Parkinson	Harry M. Smith
Betty F. Felter	Jeanette Q. Hines	Catherine J. Lonas	John Paulkovich	Kathryn A. Smith
Casimir A. Ferenc	Sanford W. Hinkal	Marjorie V. Longanecker	Alton D. Payne	Robert L. Smith
Richard J. Fitzrenreiter	William M. Hocking	Paul D. Lowman	Lloyd C. Payne	Nancy L. Spencer
Robert T. Fitzgerald	Brent N. Holben	Barbara C. Lueders	Michael C. Peck	Walter Squillari
Thomas J. Flannigan	Carroll M. Horn	George E. MacVeigh	Daniel M. Pendleton	O. Glenn Staley
Thomas W. Flatley	Lee J. Horning	Jeffer M. Mahmot	Evelyn K. Peters	James M. Stevens
Charles M. Fleetwood	Allen W. Hosmer	John A. Mahoney	Norman E. Peterson	Richard D. Stewart
Gilbert M. Fleisher	Robert C. Howatt	Donald L. Margolies	Josephine T. Petrone	William N. Stewart
Robert Y. Flynn	Peter S. O. Hui	Robert H. Markley	William A. Pfeiffer	
	John M. Humphreys			

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## Special Achievement Awards (cont.) *Continued from previous page*

Dorothy E. Stinson	Foteni T. Tiffany	Robert D. Turkelson	Leon C. Warren	James M. Williamson
William A. Struthers	Smith E. Tiller	Roberta A. Valonis	Hugh K. Warren	Elizabeth P. Wilson
Robert C. Sutphin	William T. Timmons	Paul Velgos	Albert B. Washburn	Genevieve E. Wiseman
Jorise M. Sutton	Joyce A. Tippett	Gary B. Vincent	Doris B. Watkins	Lois G. Workman
William T. Tallant	John J. Tominovich	George W. Von Arb	Raymond V. Welch	William O. Worrall
Robert C. Taylor	Eduardo O. Torres-Martin, Sr.	Tycho T. Von Rosenving	Charles E. White	Mary A. Wyatt
Jean E. Terry	Catherine C. Travers	Lillian E. Walker	Elaine D. White	Walter S. Wyman
Eugene D. Thomas	Charles E. Trevathan	Bowden W. Ward, Jr.	Jack T. Williams	Colette D. Yost
John O. Thomason	Harry E. Trexel	Teri L. Warnick	James L. Williams	Phillip C. Yu
William G. Thompson				John J. Zaniewski

## Inventions and Contributions

Siegfried O. Auer	National Academy of Science	John J. Hillman	GSFC	Walter Viehman	GSFC
James A. Bass	GSFC	Donald E. Jennings	National Academy of Science	Paul E. Wren	GSFC
Edward M. Gaddy	GSFC	Henry C. Hoffman	GSFC	Paul E. Wren	GSFC
Jeffrey W. Benham	General Electric	Murzban D. Jhabvala	GSFC	Lo I Yin	GSFC
Stephen R. Peck	General Electric	Murzban D. Jhabvala	GSFC		
John S. J. Benedicto	GSFC	Russell W. Johnson	Ball Corp.		
Frederick C. Hallberg	GSFC	Ronald J. Stockton	Ball Corp.		
Clinton E. Carle	GSFC	Julius A. Kaiser, Jr.	GSFC		
Louis O. Caudill	GSFC	James J. Kerley, Jr.	GSFC		
Joseph W. Cunningham	GSFC	Leonard L. Kleinberg	GSFC		
Lawrence D. Wing	GSFC	Leonard L. Kleinberg	GSFC		
Thomas A. Cygnarowicz	GSFC	Betty R. Lyman	GSFC		
Thomas E. Williams	GSFC	Anthony J. Miller	GSFC		
Eugene A. Czarcinski	GSFC	Ronald M. Muller	GSFC		
Paul M. Feinberg	GSFC	James K. Niswander	GSFC		
John G. Lesko, Jr.	GSFC	Raymond J. Stattel	GSFC		
Marvin S. Maxwell	GSFC	James K. Niswander	GSFC		
Joseph R. Silverman	GSFC	Raymond J. Stattel	GSFC		
James H. Donohue	GSFC	James K. Niswander	GSFC		
Henry C. Hoffman	GSFC	Raymond J. Stattel	GSFC		
Robert J. Eby	Fairchild Hiller	Henry D. Obler	GSFC		
Edward I. Powers	GSFC	Stanford Ollendorf	GSFC		
John G. Etzel	GSFC	John Paulkovich	GSFC		
James A. Munford	GSFC	G. Ernest Rodriguez	GSFC		
Theodore Flattau	Hammer-Cutler	James C. Perry	GSFC		
Ronald A. Lange	Hammer-Cutler	Victor S. Reinhardt	GSFC		
John W. Mellard	Hammer-Cutler	Stephen H. Rice	GSFC		
Bernard J. Peyton	Hammer-Cutler	Arthur A. Rudmann	GSFC		
John W. Wolczok	Hammer-Cutler	Gustave J. Schaefer	Hughes Aircraft		
Lai-wo Fung	National Academy of Science	Richard F. Schmidt	GSFC		
Paul J. Gruberger	Johns Hopkins University	Michael C. Shai	GSFC		
Carl L. Haehner	GSFC	Richard A. Shimansky	GSFC		
John L. Tarpley	GSFC	Rodney S. Spencer	GSFC		
Kenneth L. Hallam	GSFC	Philip A. Studer	GSFC		
C. Bruce Johnson	Bendix				
Thomas M. Heslin	GSFC				

## Tech Briefs

Hossein Bahiman
James A. Bass
Edward M. Gaddy
James B. Billingsley
Peter A. Bracken
Albert Blum
Murzban D. Jhabvala
Hans O. Bremer
Vincent G. Canali
Stephen A. Castles
Michael J. Coyle, Jr.
Joseph W. Cunningham
Lawrence D. Wing
John J. DeLuca
Victor S. Reinhardt
Harold P. Frisch
Carl L. Haehner
Howard Herzig
Rodney S. Spencer
Thomas M. Heslin
Barton J. Howell
Donald E. Jennings
Murzban D. Jhabvala
Julius A. Kaiser, Jr.
James J. Kerley, Jr.
Leonard L. Kleinberg
Gerhard Koepf
James P. Marshburn
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