# American Institute of Aeronautics and Astronautics

Houston Section



# 25th Anniversary Honors and Awards Banquet

June 4, 1987 · 5:30 pm Gilruth Center

## 1986-87 Section Officers

Chairman

Chairman-Elect

Vice-Chairman, Operations

Vice-Chairman, Technical

Secretary

Treasurer

Councillors

Karen D. Godek

Carl R. Huss

Louis E. Livingston

Walter J. Lueke

Debra L. Nienhaus

Scott Satterwhite

Kyle O. Fairchild Richard A. Hermling Ernest R. Hillje Robert E. Lewis Ava Lunsford Edward J. Monteiro James Oberg Don Rhorer Stephanie A. Vickery Richard L. West Nancy Wood

#### **Operations Committee Chairmen**

Richard P. Bennett Karen Johnson Quin D. Shepperd II William A. Stewart John W. Sunkel Dr. Zafar Taqvi James T. Visentine Richard L. West Bret Wingert Student Affairs Public Affairs Newsletter Educational/Professional Development Programs and Events Membership Honors and Awards Young Members

# **Technical Committee Chairmen**

Dr. Frank Baimonte Ray A. Baker William Bryan Carlos S. Campos Kyle O. Fairchild Dr. Marian L. Lewis Jalal Mapar Edward J. Monteiro Don Probe Charles A. Ritrivi Energy Systems Communications Systems Space Systems Management International Space Activities Life Science Space Processing Mechanics and Control of Flight Computer and Software Systems Materials, Structures, and Dynamics Ground and Test Simulation

## AIAA Houston Section 1987 Honors and Awards

- Joe Algranti for continued service to the Houston Section as representative to the Region IV Activities Council.
- John Alred for his assistance in the organization of the 12th Annual Technical Symposium.
- Dr. Frank Baimonte for dedicated service as Chairman of the Energy Systems Technical Committee.
- Ray Baker for dedicated service as Chairman of the Communications Systems TC and for chairing a Session at the 12th Annual Technical Symposium.
- Jerome Bell for service to the Section by chairing a Session at the 12th Annual Technical Symposium.
- Richard P. Bennett for dedicated service as Chairman of the Student Affairs Committee and for his contributions to the Scholarship Committee and the Science and Engineering Fair.
- Bill Best for dedicated service as AIAA representative to the Clear Lake Council of Technical Societies; for his work on the newsletter committee; and for his assistance during the 12th Annual Technical Symposium.
- William Bryan for dedicated service as Chairman of the Space SystemsTechnical Committee and for helping organize and chairing a Session at the 12th Annual Technical Symposium.
- Carlos S. Campos for dedicated service as Chairman of the Management Technical Committee, and for his contributions to the 12th Annual Technical Symposium.
- Dr. Aaron Cohen for continual support of the Houston Section and for serving as General Chairman for the 12th Annual Technical Symposium.
- Don Cravey for service to the Section by chairing a Session at the 12th Annual Technical Symposium.
- Glenn Ellis for dedicated service to the Section through his work on the Newsletter, membership on the Teller's Committee, and his assistance during the 12th Annual Technical Symposium.
- Kyle O. Fairchild for dedicated service as Chairman of the International Space Activities Committee and as a Councillor to the Section, and for his help in the creation of the "New Horizons '87: Space for a Wider World" program.
- Karen D. Godek for dedicated service and outstanding leadership as Chairman; for her work on the newsletter; and for her assistance during the 12th Annual Technical Symposium.
- Jack C. Heberlig for dedicated service as a Senior Advisor to the Section and for his contribution to the history of the Houston Section through creation of the Twenty-fifth Anniversary collage and documentary booklet.
- Richard A. Hermling for his dedicated service as Councillor to the Section, and for his contributions to the 12th Annual Technical Symposium.
- Ernest R. Hillje for dedicated service as a Councillor to the Section and as representative to the Clear Lake Council of Technical Societies.
- Jim O. Hudson for continued service as Section Historian.

- Carl R. Huss for dedicated service as Chairman-Elect; and for his work on the Scholarship Committee, Visions '87, and the Science and Engineering Fair of Houston.
- Abdul Hye for service to the Section by chairing a Session at the 12th Annual Technical Symposium.
- Karen Johnson for dedicated service to the Houston Section as Chairman for Publicity; for her work on the Membership Committee; and for her contributions to the 12th Annual Technical Symposium.
- Andy Klausman for dedicated service as Chairman of the Newsletter Committee and for his assistance during the 12th Annual Technical Symposium.
- Mike Laible for service to the Section by chairing a Session at the 12th Annual Technical Symposium.
- Ralph Lawton for his efforts on the VLSI Technology Conference.
- Dr. Marian L. Lewis for dedicated service as Chairman of the Life Science and Space Processing Technical Committee and for chairing a Session at the 12th Annual Technical Symposium.
- Dr. Robert E. Lewis for his dedicated service as Past-Chairman, serving as Councillor to the Section; and for his invaluable guidance to the Chairman.
- Larry Livingston for service to the Section by chairing a Session at the 12th Annual Technical Symposium.
- Louis E. Livingston for dedicated service as Vice-Chairman, Operations, especially his work on the newsletter and Dinner Program series.
- Walter J. Lucke for dedicated service as Vice-Chairman, Technical; for expanding the reach of the Section's Technical Committee activities; and for the resounding success of the 12th Annual Technical Symposium.
- Ava Lunsford for dedicated service as Programs Chairman, Councillor, and Senior Member Committee Chairman; for helping increase membership of the Section; and for invaluable assistance to the 12th Annual Technical Symposium.
- Jalal Mapar for dedicated service as Chairman of the Mechanics and Control of Flight Technical Committee and for chairing a Session at the 12th Annual Technical Symposium.
- Dr. Charles McKay for support of the Houston Section and his invaluable contribution to the 12th Annual Technical Symposium.
- James C. McLane, Jr. for dedicated service as a Senior Advisor to the Section; for his efforts towards establishing a Sister Section with the Chinese Society of Astronautics; for being a member of the Teller's Committee; and for serving as "unofficial" Section Photographer.
- Edward J. Monteiro for dedicated service as a Councillor of the Section and as Chairman of the Computer and Software Systems TC; for his special assistance to the Awards Chairman; and for chairing a Session at the 12th Annual Technical Symposium.
- Debra L. Nienhaus for dedicated service as Secretary; for her work on the newsletter; and for her assistance during the 12th Annual Technical Symposium.
- James Oberg for dedicated service as a Councillor to the Section and for his "unique" assistance to the International Space Activities Committee.
- Don Probe for dedicated service as Chairman of the Materials, Structures, and Dynamics Technical Committee and for chairing a Session at the 12th Annual Technical Symposium.

- Pat Rawlings for support of the Houston Section and his invaluable contribution to the 12th Annual Technical Symposium.
- Charles Ritrivi for dedicated service as Chairman of the Ground and Test Simulation Technical Committee and for chairing a Session at the 12th Annual Technical Symposium.
- Don Rhorer for his dedicated service as Councillor to the Section; his assistance on the Dinner Program series; and for chairing a session at the 12th Annual Technical Symposium.
- R. Scott Satterwhite for dedicated service as Treasurer; for his work on the Young Member Committee; for his assistance during the 12th Annual Technical Symposium; and for serving as judge for the Region IV Student Paper Competition.
- Sonbol Sepahban for service to the Section by chairing a Session at the 12th Annual Technical Symposium.
- K. S. Shankar for service to the Section by chairing a Session at the 12th Annual Technical Symposium.
- Quin D. Shepperd II for dedicated service to the Houston Section as Chairman for Public Affairs.
- Don Smith for support of the Houston Section and his invaluable contribution to the 12th Annual Technical Symposium.
- William A. Stewart for dedicated service to the Houston Section as Editor-in-Chief of the Section Newsletter.
- John W. Sunkel for service to the Houston Section as Chairman for Educational and Professional Development.
- Andre' Sylvester for service to the Section through his work with the Space Systems Technical Committee and chairing a Session at the 12th Annual Technical Symposium.
- Andy Sylvester for service to the Section by chairing a Session at the 12th Annual Technical Symposium and for his contributions to the Student Affairs Committee.
- Dr. Zafar Taqvi for dedicated service as Chairman for Programs and Events and his invaluable assistance to the Chairman.
- Stephanie A. Vickery for her dedicated service as a Councillor to the Section.
- James T. Visentine for his continuing dedicated service as Membership Chairman, contributing to the future of the Houston Section.
- John Watson for support of the Houston Section and his invaluable contribution to the 12th Annual Technical Symposium.
- Richard L. West for dedicated service as a Councillor of the Section and for his work as Chairman for Honors and Awards.
- Bret Wingert for dedicated service as Chairman of the Young Member Committee and as Region IV Deputy Director for Young Members; for his work on the Scholarship Committee; and for his assistance during the 12th Annual Technical Symposium.
- Loren E. Wood for his dedicated service as a Senior Advisor to the Section and for chairing a Session at the 12th Annual Technical Symposium.
- Nancy Wood for dedicated service as a Councillor to the Section and for her help in the creation of the "New Horizons '87: Space for a Wider World" program.

#### 12 Annual Technical Symposium Best Presentation in Session Awards

Session 1: Communications Systems I Shavla E. Davidson "Advanced Communications Technology Satellite" Session 2: Computers and Software I Gary J. Cernosek "An Approach to Software Requirements Analysis for Object-Based Development" Session 3: Energy Systems I J. K. Thomas "The Fully Passive Space Reactor Concept: A Scoping Study" Session 4: Ground Test and Simulation W. C. Rochelle "Flight Simulation of Flow Through an Orbiter Payload Bay Vent Box" J. M. Trebes "Man-Systems Integration Test Bed or Mockups and Trainers at JSC" Session 5: Material, Structures and Dynamics I Michael C. Jansen "The Calculated Effect of Surface Curvature on Blunt AOTV Hypersonic Aerodynamics" Session 6: Space Systems I Douglas W. Ming "Zeolites: Applications In Life Support Systems" Session 7: Mechanics and Control of Flight Debra Schreckenghost "GPS Navigation of a Spacecraft During Low Thrust Maneuvers" Session 8: Payloads and Experiments Jeff Dominick "Two-Phase Pumped Loop Flight Test" Session 9: International Space Activities/Space Commercialization Major George C. Nield "Space Planes: The Next Generation" Session 10: Communication System II William T. Jordan "Voice Recognition in the Space Shuttle" Session 11: Computers and Software II D. G. Jensen "The Space Station Workstation System: A Network of Man-Systems Interfaces"

D. R. Desaulniers "Computer-Based Presentation of Procedural Information" Session 12: Energy Systems II Eva P. Ferris "Rotary Gimbal Seal Life Test Program"

Session 13: Life Science and Space Processing Dane Russo "The Space Station Environmental Health Monitoring Subsystem"

Session 14: Material Structure and Dynamics II Ruthan Lewis "Effects of Surface-Type on the Gloved Hand Manipulation of a Space Station Strut/Truss Connector"

Session 15: Space Systems II Eric Bechler "TAU: A Design for a Thousand Astronomical Unit Voyage"

Session 16: Mechanics and Control of Flight Scott Teplitz "Station Reboost Analysis Program"

Session 17: Management/Space Ethics Larry Livingston "Training in Color Enhances Productivity"

Session 18: Material, Structure, and Dynamics III W. C. Rochelle "SSME Unburned Hydrogen, Air Entrainment, and Flow Field Analysis for VAFB Hydrogen Disposal System"

Session 19: Artificial Intelligence Developments at IBM Federal Systems Division Ron Barrett "CREST: Code Review Expert System Tool"

#### **Associate Fellows**

Dr. Rod Bown Dr. Charles Dalton John Fabian Jake Klinar Richard Kohrs Louis Livingston Frank Morgan Steve Nagel Malik Putcha Emyre Robinson John Schuessler Nancy Wood

# **25-Year Members**

David Gilbert James C. McLane, Jr. Dr. Jerry Modisette Scott H. Simpkinson Max A. Turner

# **40-Year Members**

Joseph W. Coddou Stanley Faber Lewis R. Fisher Robert R. Stephens

# 1987-88 Section Officers

Chairman Chairman-Elect Vice-Chairman, Operations Vice-Chairman, Technical Secretary Treasurer

New Councillors

Carl R. Huss Walter J. Lucke Don Rhorer Andre'Sylvester Karen Johnson Debra L. Nienhaus

Garland Bauch Dudley Nelson Jon Trebes Jim Snowden