

Chairman's Corner

Steve Zobal
Chairman

Included in this *Horizons* issue is the Houston Section 1993-94 Elections Ballot containing validated nominees, bios and positions to be filled, and the closing date for the return of ballots. Don't wait until the last minute, though. Mark your ballot now and return it. There's no easier way to participate in Section activities than to vote for the candidate of your choice.

appointed by the Chairman-Elect will evaluate the applicants and select the recipient for the following fall/spring term. The first half of the scholarship amount will be mailed to the financial aid office at the start of the fall term and the second half at the start of the following spring term. **H**

Last October in this column I gave a brief overview of the Section's AIAA Spirit of Apollo Scholarship program. I bring this to your attention because we have initiated this year's process with a mail-out package to nearby college and university financial aid offices. Members of the Houston Section and their families are eligible for award of the scholarship provided the school attended is within the section boundaries as defined by AIAA National Headquarters. Applicants must have defined a scholastic plan that provides entry into some field of engineering or science pertinent to AIAA technical activities and must meet other pre-defined eligibility requirements.

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The scholarship was established in 1988 and is funded from interest on moneys the Section maintains in a local savings account. Income derived from the 20th Apollo anniversary banquet in 1989 was added to the scholarship fund principal. Because of today's low interest rates, the Board has elected to reduce the award from \$1,000 to \$500 for the 1993-94 school term.

The information contained in the mail-out package to the colleges and universities is in an attachment to this newsletter. Included is a description of the application process, selection criteria, and application forms. The deadline for receipt of completed applications is May 3, 1993. A scholarship committee

Horizons is the monthly newsletter of the Houston Section of the American Institute of Aeronautics and Astronautics. It is created by members of the Houston Section and reproduced at the Houston offices of Lockheed Engineering and Sciences Company. Please address all correspondence to the Vice-Chairman of Operations, Audrey Schwartz, JSC/IA121, or to the Editor, Lou Livingston, 1911 Pepper Hill, Houston, TX 77058.

From National

Educator Membership Program

AIAA National has announced a one-year pilot program for a new Educator Membership category. The objective of the program is to promote active and organized AIAA involvement in the encouragement of the youth of America to pursue studies of mathematics, science and related technical subjects. In this program, AIAA sections will select members who are interested in youth education and working with educators. These members will establish points of contact with teachers in elementary, middle and high schools in the section's vicinity to foster student interest in mathematics and science.

Dues for the first year pilot program are free. Subsequent dues (\$35 per year) are to be covered through section funds or by the individual educator.

The pilot program has been funded for one year (1993). During the pilot program, each section will be limited to two educator memberships. On full implementation, educator membership will be limited to educators sponsored by local section Chairmen or Education Officers. ♣

Committee News

Additional Chinese Aerospace Journal Issues

Larry Friesen
International Space Activities Committee

Three more issues of the *Journal of the Chinese Society of Astronautics*, described in February's news note, have been received. These issues are from 1989. In addition, four issues from 1990 of another Chinese-language journal, *Space Flight*, have been received. Unlike the *Journal of the Chinese Society of Astronautics*, articles in *Space Flight* do not have English abstracts. As before, these periodicals are available to AIAA Houston Section members at my cubicle at Lockheed Engineering & Sciences Company (LESC), mail code B12, phone 333-6799, E-mail LOCK::FRIESEN. ♣

It's Election Time!

We'll remind you one more time to cast your vote for next year's section officers and councillors. The ballot and biographies of the candidates are at the front of this issue of Horizons. Please note that the ballots must be *received* by the Secretary *by May 14*. Yes, this means you have plenty of time to take care of this little responsibility. It also means that you have plenty of time to forget about it. So do it **NOW, OK?**

Events

Wednesday Afternoon at the Movies

George Nield

Education/Professional Development Committee

The Education and Professional Development Committee of the Houston Section is continuing to sponsor presentations of videotapes of interest to the aerospace community. The presentations will be held on site at JSC in Building 1, Room 810, starting at 4:15 PM.

Our next showing will be April 28, 1993, featuring "Blueprint for Space: Science Fiction to Science Fact." This video, which is narrated by former astronaut Alan Shepard, uses a remarkable combination of rare paintings, historical footage, and computer animation to trace the development of space flight from ancient Chinese rockets to Wernher von Braun, and from Jules Verne's adventure stories to the Apollo moon landings.

For questions, please call George Nield at 483-1364.



Technical Career Day Set

The Houston Engineering and Scientific Society is sponsoring a Technical Career Day and employment fair on Saturday, April 24, from 9:00 to 4:30. It will be held at the Society's facility at 3121 Buffalo Speedway, one and a half blocks north of I-59 in the Greenway Plaza area. Admission is \$2.00; students are admitted free with valid identification.

The Career Day is planned as an opportunity for technical professionals and prospective employers to get together. There will also be seminars and company presentations.

For more information, call 613-8871.



March Dinner Meeting

Lou Livingston
Editor

The Houston Section's monthly dinner meeting was held Wednesday, March 24. Mr. Peter J. Rots, Senior Director of Engineering and Technical Publications for Continental Airlines, discussed engineering in the airline industry, an interesting change of pace from the usual space-related topics. In the airlines, safety is a paramount consideration in engineering, but engineering is basically the same everywhere; only the details differ.

Mr. Rots went on to look 25 years into the airlines' future. The information revolution that is now under way will have a major impact. Rapid data transfer, teleconferencing, etc. will continue to reduce the need for frequent business flying (the bulk of air travel used to be for business; it's now about an even split between business and pleasure). As the proportion of pleasure travel increases, on-board comfort will become more important than time-saving. Thus, supersonic and hypersonic transports will have no significant future.

Airlines may become more like cruise lines, in that the trip itself is more important than simply getting somewhere. Air freight will also be a major factor in air transport.



Also Noted

UH Summer, Fall Courses Announced

The University of Houston has announced several courses in their graduate degree programs in Industrial Engineering and Aerospace Engineering. These include off-campus television courses and courses offered at UH-Clear Lake. For information on registration and admission, call the Cullen College of Engineering at 743-4200.

Television Courses - JSC Building 45 Beginning Monday, June 7, 1993

Registration:

Wednesday, April 28, 1993

10:30 AM to 2:00 PM

Lobby, JSC Building 45

ELEE 6370/04510

Advanced Digital Design - D. Stauffer

6:00-8:00 PM Monday/Wednesday

ELEE 6342/04513

Digital Signal Processing - B. Jansen

4:00-6:00 PM Monday/Wednesday

INDE 6365/04515

Engineering Economy II - J. Hunsucker

4:00-6:00 PM Tuesday/Thursday

Television Courses - JSC Building 45 Beginning Monday, August 30, 1993

(Building and room numbers to be assigned.)

ELEE 6313/02302

Neural Networks - H. Ogmen

12:00-1:30 PM Monday/Wednesday

ELEE 6336/10066

Advanced Microprocessor Systems - P. Markenscoff

11:30-1:00 Tuesday/Thursday

ELEE 6364/10069

Digital Image Processing - T. Hebert

5:30-7:00 PM Monday/Wednesday

ENGI 6362/01651

Methods of Applied Mathematics - Y.-C. Chen

4:00-5:30 PM Monday/Wednesday

INDE 6332/10064

Engineering Project Management - J. Hunsucker

4:00-5:30 PM Tuesday/Thursday

INDE 6372/10062

Oper. Research & Analysis/Systems - T. Yang

5:30-7:00 PM Tuesday/Thursday

UH-Clear Lake Courses

Beginning Monday, August 30, 1993

(Building and room numbers to be assigned.)

Required course in Industrial Engineering:

INDE 6336/10366

Reliability & Quality Control - C. Donaghey

4:00-7:00 PM Wednesday

Courses in Aerospace Engineering:

MECE 7397/10732

Propulsion and Engines - J. Yang

4:00-7:00 PM Tuesday

MECE 7397/10380

Orbital Mechanics I - instructor to be arranged

4:00-7:00 PM Thursday

AIAA Calendar

The AIAA Calendar is intended to encompass all Houston Section events and significant dates. This includes Executive Council meetings, which are open to interested members, and *Horizons* deadlines. It will also include committee meetings, Lunch & Learns and similar events if *Horizons* hears about them in time for inclusion. Please send pertinent details either to Audrey Schwartz, JSC/IA121, or to Lou Livingston, 1911 Pepper Hill, Houston, TX 77058.

April

7 - Wednesday

Automation & Robotics TC.
"Control of Hyper-Redundant Manipulators in Space Environment," Dr. Reginald Berka, JSC.
JSC Gilruth Center, room 206, 11:30 AM.
Information: Dr. Zafar Taqvi, 333-6544.

22 - Thursday

Executive Council meeting.
MDC Tower 1, Rm. 160, 5:00-6:15.

26 - Monday

Inputs due COB for May *Horizons*.

29 - Thursday

Monthly dinner meeting.
Program TBD.
JSC Gilruth Center, 5:30/6:30/7:30.

May

20 - Thursday

Executive Council meeting.
MDC Tower 1, Rm. 160, 5:00-6:15.

21 - Friday

Inputs due COB for June *Horizons*.

27 - Thursday

Monthly dinner meeting.
Program TBD.
JSC Gilruth Center, 5:30/6:30/7:30.

June

17 - Thursday

Executive Council meeting.
MDC Tower 1, Rm. 160, 5:00-6:15.

24 - Thursday

Monthly dinner meeting.
Annual Honors and Awards Banquet.
JSC Gilruth Center, 5:30/6:30/7:30.

H

Please note that the deadline for material for the June issue of *Horizons* is Friday, May 21, not Monday, May 24, as previously scheduled. The change is necessary to accommodate travel schedules. If you have anything to be included in the June issue, it *must* reach Audrey Schwartz, Vice-Chairperson, Operations, or Lou Livingston, *Horizons* Editor, by close of business May 21.

OUTSTANDING SECTION AWARD



1975-1976
1976-1977
1979-1980
1980-1981
1981-1982
1983-1984
1986-1987
1988-1989

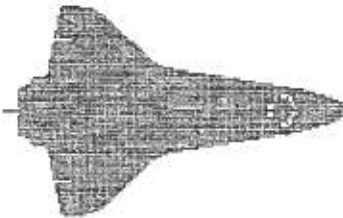


SECTION SPECIAL EVENT AWARD

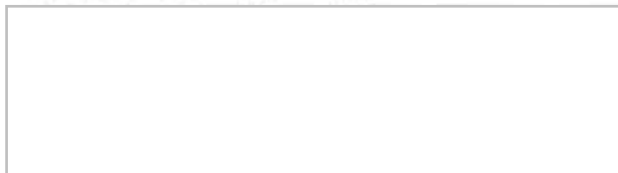


1971-1972
1972-1973
1979-1980
1981-1982
1983-1984
1985-1986
1988-1989

AIAA Houston Section
P.O.Box 57524
Webster, TX 77598



Non-Profit Organization
U.S. POSTAGE PAID
Webster, Texas
Permit Number 1





STEVE ZOBAL
CHAIRMAN 1992-93

American Institute of Aeronautics and Astronautics

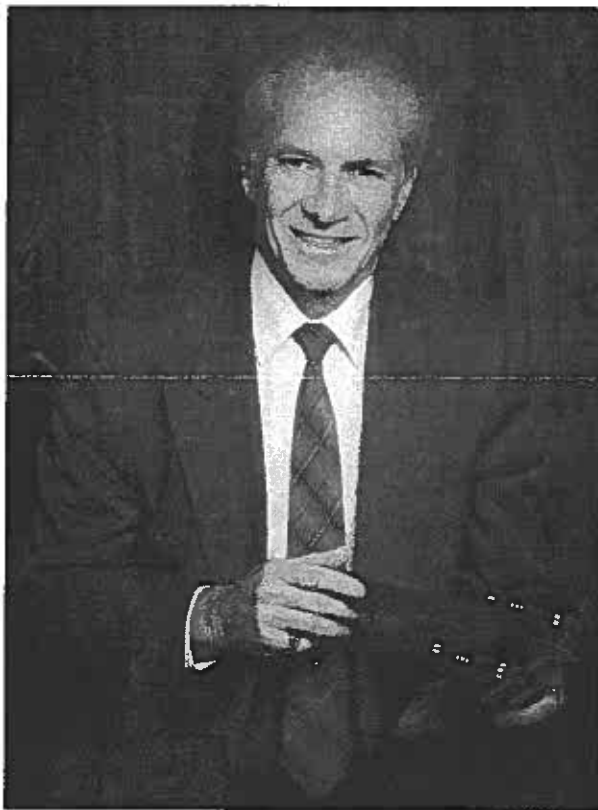
HOUSTON SECTION P.O. BOX 57524 WEBSTER, TEXAS 77598

Thursday, April 29, 1993

OPERATION SKUNK WORKS

MR. BEN R. RICH

Past President, Lockheed Advanced
Development Co. (Skunk Works)



PRESENTER

Ben R. Rich became a consultant to Lockheed and Rand Corp. after retiring from Lockheed on Jan. 1, 1991. He became president of the Lockheed Advanced Development Company, known also as the "Skunk Works", when it separated from Lockheed Aeronautical Systems Company to become its own branch in 1990. Rich joined Lockheed in 1950, participating in aerodynamic, thermodynamic, propulsion and preliminary design aspects of the F-104, U-2, YF-12, SR-71, & other technologically sophisticated programs earning international recognition. He was named senior engineer for advanced programs in 1963 and served as program manager and assistant chief engineer. He became vice president for fighter programs and preliminary design in 1972. In 1988, he was the AIAA/Royal Aeronautical Society Wright Brothers Lecturer and winner of *Aviation Week & Space Technology's* Aero/Propulsion Laurel Award. He is a recipient of the 1989 Collier Trophy for production and deployment of the F-117A Stealth fighter. Mr. Rich is an AIAA Honorary Fellow.

Executive Host

RON MODES

Director

Space Systems Dept

Intermetrics, Inc.

Houston

DINNER MEETING

SOCIAL: 5:30

DINNER: 6:30

PROGRAM: 7:30

MENU: CHICKEN IMPERIAL

MEMBERS & SPOUSES	\$9.00
NONMEMBERS	\$10.00
STUDENTS/YOUNG MEMBERS	\$8.00

**AIAA HOUSTON SECTION MEETINGS
ARE HELD AT THE JOHNSON SPACE CENTER
ROBERT R. GILRUTH RECREATION CENTER**

Frankie Hap
333-6064
Lockheed

Ardell Broussard
283-1040
McDonnell Douglas

Kim Wunsch
483-1350
RSOC

Sarah Leggio
282-3160
Bendix

**CALL ONE OF THE ABOVE FOR RESERVATIONS.
DEADLINE IS MONDAY, APRIL 26, AT 12:00 NOON.**

**ANY CANCELLATIONS ARE REQUIRED PRIOR TO DEADLINE. NO-SHOWS WILL BE BILLED.
ALL ARE WELCOME.**

DINNER RESERVATIONS ARE NOT REQUIRED FOR ATTENDING THE PROGRAM ONLY.

AIAA Houston Section Annual Election

The 1993-94 Houston Section Nomination Committee has complied with the process defined in our bylaws to determine the attached slate of officers and councillors for the 1993-94 office term. These candidates have agreed to serve the Section to the best of their capabilities.

Please mark your ballots and return to Tek Shrini, 1992-93 Houston Section Secretary, mail code U08C (for inter-office mail) or to the AIAA Houston Section, P. O. Box 57524, Webster, TX 77598, *on or before May 14, 1993.*

Dr. George C. Nield

Chairman-Elect

Dr. Nield is currently serving as Manager of the NASA Flight Integration Office within the Space Shuttle Program at JSC. His previous work assignments have included Assistant Professor of Astronautics at the United States Air Force Academy in Colorado Springs, and Flight Test Engineer at Edwards Air Force Base. He holds a B.S. in Engineering Science from the United States Air Force Academy, and an M.S. and Ph.D. in Aeronautics and Astronautics from Stanford University. He is also a graduate of the USAF Test Pilot School and is a registered Professional Engineer.

In addition to being an Associate Fellow of the AIAA, Dr. Nield is a Member of the Society of Flight Test Engineers and a Fellow of the British Interplanetary Society. A member of the AIAA since 1973, he has served as Secretary and Treasurer of the Antelope Valley Section and as Faculty Advisor for the AIAA Student Branch at the USAF Academy. He has been a Councillor for the AIAA Houston Section since 1989, and was responsible for organizing the "Wednesday Afternoon at the Movies" aerospace video series.

Dr. Dudley Nelson

Vice-Chairman, Technical

Dr. Nelson is currently Manager of the Structural Analysis and Test Department at Lockheed Engineering and Sciences Company. He has supported the JSC Structures and Mechanics Division for over 18 years while at Lockheed and McDonnell Douglas. He received his B.S. and M.S. in Aerospace Engineering and his Ph.D. in Engineering Mechanics.

He is an AIAA Associate Fellow and has a number of AIAA publications. Dr. Nelson has supported the Houston Section as a councillor, member of the Technical Applications Committee, member of the committee to set up invited lecture series on Fundamentals of Spacecraft Design (1986 AIAA Special Event Award), twice Chairman of the Materials, Structures and Dynamics Technical Committee, and session Chairperson for local symposia.

Tek Shrini

Vice-Chairman, Operations

Mr. Shrini, also known as T. K. Srinivason, is a Senior Member of AIAA and is affiliated with Paramax (formerly UNISYS) Corporation. He obtained a Bachelor of Engineering degree in Mechanical Engineering from the University of Madras, India, and a Master of Science from the School of Aerospace, Georgia Institute of Technology. He has been an active member of AIAA since graduation. He chaired the Membership Committee in the Los Angeles Chapter in 1984. He contributed to the requirements analysis of Space Shuttle FSSR documents while at

Lockheed, Houston. He formulated design reliability prediction methodology for aircraft engines at Pratt & Whitney and for missile systems at LTV Corp. He did research on the guidance and control of ballistic missile defense systems at Vought Corp. His last assignment with General Dynamics included optimal trajectory analysis of hypervelocity vehicles. He currently supports the day of launch software systems for the Space Shuttle Operations Division. His current interests are in guidance & control and propulsion sciences. He served as Houston Section Secretary for the past year.

Mike Begley

Secretary

Mr. Begley earned a B.S. in 1983 and an M.S. in 1990, both in Electrical Engineering from the Georgia Institute of Technology. He is Principal Engineer for Lockheed Engineering and Sciences Company, conducting frequency response analyses and time domain simulation of the Space Shuttle first stage flight control system for the Advanced Solid Rocket Motor program.

He has been a Senior Member of AIAA since 1986. He has served as Chairman of the Houston Section Student Activities/Young Members Committee since February 1992 and is Chairman of the 1993 AIAA Region IV Student Paper Competition.

Dr. James Stramler

Treasurer

Dr. Stramler graduated with a B.A. in 1970 from California State University, an M.S. in 1977 and a Ph.D. in 1978 from the University of Houston. All degrees are in psychobiology. He has been at JSC for almost twelve years, and is currently with Barrios Technology, working in the Astronaut Station-Exploration Office in Bldg. 4S. He works with Man-Systems issues, the Crew Health Care System, and human factors for Space Station.

Dr. Stramler is an AIAA Associate Fellow. He served as Chair of the Houston Section's Space Systems Technical Committee in 1987, and is currently a member of the National Space Operations and Support TC.

Dr. Stramler taught for three years in the Biology Department of Texas A&M University prior to coming to JSC, and recently had a book published by CRC Press, *The Dictionary for Human Factors/Ergonomics*.

Dick Bennett

Councillor

Dick Bennett holds a B.S. in Electrical Engineering from the University of Kansas (1956), an M.S. in Servomechanisms from St. Louis University (1961) and an Ed.D. from the University of Houston (1975). He has been a member of AIAA since 1963 and was granted the rank of Associate Fellow in 1990. He is currently employed by McDonnell Douglas on the Space Station Program. Other engineering experience was with Lockheed Electronics and TRW in Houston, and Emerson Electric and McDonnell Douglas in St. Louis. In addition, he has been a member of the Psychology Department faculty at Texas Woman's University. His most recent post with the Houston Section was as Vice-Chairman, Technical. He also served two years as Chairman of the Student Affairs Committee and was a member of the original Scholarship Committee. He worked on each of the three Region IV Student Paper Competitions held in Houston, serving as Chairman for the 1991 competition.

Paul Judas

Councillor

Mr. Judas graduated in 1988 from Iowa State University with a B.S. in Aerospace Engineering, specializing in spacecraft systems design. He is currently working as an engineer specialist with McDonnell Douglas Aerospace, Houston Division, in the Shuttle GN&C FSW Verification Task. He was promoted in June 1991 to technical lead of the group which supports IBM in certifying the on-orbit portion of the Shuttle GN&C flight software and simulated vehicle performance for each mission. He has been with the task for four years. He is a certified private pilot and is a member of the Ellington Field Aero Club. He is also an avid scuba diver.

While in college, Mr. Judas served the ISU AIAA student section in several capacities, including Engineer's Week Council representative and liaison to the SAE Mini-Formula project group. He has served the Houston Section as Secretary for the 1990-91 section year and as Treasurer for the 1992-93 section year.

Lou Livingston

Councillor

Mr. Livingston received a B.E. degree in Civil Engineering from Yale University in 1949 and an M.S. in Mechanical Engineering from Rice University in 1965. He worked at Boeing-Wichita for three years on the B-52 and advanced programs. He retired from JSC in 1989 after 26 years devoted primarily to conceptual design and systems engineering of advanced concepts. He was awarded the NASA Medal for Exceptional Engineering Achievement in 1982.

Mr. Livingston has been an Associate Fellow of the AIAA since 1986 and a member since 1969. He served as Houston Section Councillor from 1983 to 1985 and as Vice-Chairman, Operations in 1986-87. He has been Editor of *Horizons*, the Houston Section newsletter, since 1989.

Emyré Robinson

Councillor

Emyré Barrios Robinson is a native Texan from El Paso. She attended UCLA and received her B.A. degree from the University of Houston in 1971. She worked for Kentron International for over seven years starting as a technical editor. She was Business Manager for Kentron when she left in 1980 to form Barrios Technology, Inc. Ms. Robinson and seven engineers and professionals worked together to submit a proposal to JSC to do the flight design support services that would be required for the operational phase of the Space Shuttle flights. Barrios Technology was awarded the contract and the company opened its doors with 15 employees. The company currently employs 250 people and has offices in Washington, D.C.; Reston, Virginia; Huntsville, Alabama; and Colorado Springs. The company headquarters are in Houston. She served as President, Chief Executive Officer and Chairman of the Board of Directors from 1980 to 1990. In January 1992 the company was acquired by Ceridian Corp., formerly Control Data Corp. Ms. Robinson is currently supporting Ceridian as its Director of Public Relations.

Audrey Schwartz

Councillor

Audrey L Schwartz currently serves as Vice-Chairman, Operations for the Houston Section and previously co-chaired the Public Policy Committee. She is a program analyst with the JSC New Initiatives Office, where she works with planning, policy issues and technology assessment. Before joining JSC in 1990, she had nearly 17 years public affairs and marketing management experience with such corporations as Motorola, ITT, ABC, and General Growth Development. She also was an editor with the Des Moines Register and Tribune. Ms. Schwartz holds a bachelor of arts degree in journalism and mass communication from Iowa State University and a master of science degree in future studies (strategic planning/issues management) from the University of Houston-Clear Lake.

Marv White

Councillor

Mr. White is a Director of Engineering at Lockheed Engineering and Sciences Company. He has been at JSC working on various space programs since 1964. He started his work at JSC as Lockheed's Manager of the Engineering Simulation Laboratory and progressed through a series of systems engineering management positions with increasing levels of responsibility. He is a graduate of Texas Christian University.

Mr. White has been an active supporter of AIAA for many years. He has served as Section Secretary, as a Councillor since 1987, as Special Award Coordinator, a member of the Total Quality/Vision Committee, and as a Session Chair at the technical conferences. He is an Associate Fellow of AIAA.

He has also been an active supporter of the National Management Association and for many years Lockheed Houston Chapter's company representative. He has been awarded the Silver Knight of Management by the Association.



American Institute of Aeronautics and Astronautics

HOUSTON SECTION P.O. BOX 57524 WEBSTER, TEXAS 77598

SPIRIT OF APOLLO SCHOLARSHIP

AIAA HOUSTON SECTION SCHOLARSHIP PROGRAM -1993-94

The AIAA Houston Section is pleased to announce the SPIRIT OF APOLLO scholarship for the 1993-94 school year in the amount of \$500.00. One-half (\$250) will be available for the Fall Semester. The second half (\$250.00) will be available for the Spring Semester. Eligibility requirements must be met for both the Fall and Spring semesters.

OBJECTIVE:

The objective of the American Institute of Aeronautics and Astronautics (AIAA) is to advance the arts, sciences, and technology of aeronautics and astronautics.

The AIAA encourages original research, furthers dissemination of new knowledge, fosters the professional development of those engaged in scientific and engineering activities, improves public understanding of the profession and its contributions, fosters education in engineering and science, promotes communication among engineers and scientists and with other professional groups, and stimulates outstanding professional accomplishments.

ELIGIBILITY

The following eligibility requirements shall be met by the applicants for the AIAA/Houston Section Scholarship award.

1. Applicant must have completed at least one (1) academic year of full time college work at the time of receiving the scholarship.

2. Applicant must have a college grade point average not less than 3.0 on a 4.0 scale.
3. Applicant shall be enrolled in an accredited college or school.
4. Applicant's scholastic plan shall be such as to provide entry into some field of engineering or science (i.e., physical science, mathematics, or computer science) which is pertinent to the technical activities of the AIAA.
5. Applicant shall not have, or subsequently receive, any other scholarship award which combined with the AIAA award would provide a stipend greater than the tuition plus direct educational expenses (such as books, lab fees, etc.) estimated by the educational institution he or she plans to attend.
6. Students who receive an award are eligible to reapply in succeeding years. It should be stressed that regardless of GPA, renewal is not automatic. To apply for renewal, and individual must follow the application procedure indicated below.
7. Applicants must be either U.S. citizens or Permanent residents of the U.S.

SELECTION CRITERIA

The recipients of the scholarship awards will be selected on the basis of the following criteria which are listed in the order of importance.

1. Scholarship

The criterion will be evaluated on the basis of the applicants grade point average or its equivalent. A grade point average of not less than 3.0 (B) will be required.

2. Personal Assessment of Career Goals

The criterion will be evaluated by an assessment of a 500-1000 word typewritten essay. The essay should specify the career objectives of the applicant and should outline the academic program required to achieve those career objectives.

3. Recommendations

Each applicant will be judged on personal and academic merit based on letters of recommendation.

4. Extra-curricular Activities

Each applicant's high school, college, and community activities, offices, awards, and work experience will receive due consideration.

APPLICATIONS PROCESS

Each applicant will provide the following information:

1. A completed application form.
2. A current college transcript.
3. Each new applicant must include no more and no less than three (3) typewritten letters of recommendation. Individuals seeking renewal shall supply two (2) and only two letters. Recommendations from relatives will not be accepted. The letters of recommendation may be attached to the application or sent under separate cover at the address indicated below. Recommendations must be post-marked no later than the due date of the application.
4. A 500-1000 word typewritten essay as described in selection criteria.

The Applications (including transcripts, essays, etc.) for the next academic year must be post-marked no later than 3 May of the current academic year.

Applications and related materials should be addressed to:

Chairman, Scholarship Program
AIAA-Houston Section
American Institute of Aeronautics and Astronautics
P.O. Box 57524
Webster, TX 77598

ADMINISTRATION OF THE SCHOLARSHIP PROGRAM

The AIAA-Houston section's scholarship committee will be responsible for selecting the recipients of the awards.

SELECTION OF THE SCHOLARSHIP RECIPIENTS

The decisions of the AIAA Scholarship committee are considered to be final and the winner for the next academic year will be advised of the outcome by 14 May of the current academic year.

DISBURSEMENT OF THE SCHOLARSHIP FUNDS

Disbursement of the scholarship awards shall be made in the form of a check in the name of the recipient and sent to the educational institution of the selected candidate. Educational institutions attended by the recipients will be notified of the scholarship awards so that the institutions can coordinate the financial resources of the recipients.

American Institute of Aeronautics and Astronautics
- Houston Section -

Application for Scholarship

19____ - 19____

Personal Information (please type)

Name: _____ Social Sec. number: _____

Local Address: _____ Tel: (____) _____
no. & street city state zip

Date of Birth: _____ School Tel: (____) _____

Citizenship [] U. S. Citizen [] Permanent Resident of the U.S.

Current Class Rank _____ of _____

List all of your educational experience to date

Name of High School and Colleges	Dates Attended	Graduation Date	Degree	GPA
_____	_____	_____	_____	_____ out of _____
_____	_____	_____	_____	_____ out of _____
_____	_____	_____	_____	_____ out of _____
_____	_____	_____	_____	_____ out of _____
_____	_____	_____	_____	_____ out of _____

Indicate the school year for which the scholarship is requested: [] Graduate [] Senior
[] Junior [] Sophomore

Degree sought (major) _____

Activity and Employment Information

List High School, College, and community activities, including offices held and awards received.

Organization	Offices/Awards	Dates of Involvement
_____	_____	_____
_____	_____	_____
_____	_____	_____

List work experience during the last four years.

Type of Work	Employer/Company	Dates of employment
_____	_____	_____
_____	_____	_____
_____	_____	_____

Signature of applicant _____ Date _____

If additional space is necessary please continue on a separate sheet.



Houston Section

Officers 1992-1993

COUNCILLORS:

	<u>Address</u>	<u>Phone</u>	<u>Fax</u>
William Geissler	LESC/C87	333-6863	333-6908
Larry Guderian	MDC-1/52AE	283-1245	283-1819
Michael Laible	Grumman	929-7320	929-7333
Dr. George Nield	JSC/TM2	483-1364	483-8998
Mallik Putcha	IBM/6606	282-7244	
Emmyré B. Robinson	Barrios	280-1801	283-7900
Bob Savely	JSC/PT41	483-8105	483-5200
Dr. Clayton Shadeck	GE	488-9005	488-1092
Dr. Zafar Taqvi	LESC/C80	333-6544	333-7620
John Trebes	JSC/SD5	483-7215	483-6227
Marv White	LESC/C27	333-6161	

SPECIAL COMMITTEES:

	<u>Address</u>	<u>Phone</u>	<u>Fax</u>
<i>International Space Activities</i>			
Dr. Zafar Taqvi	LESC/C80	333-6544	333-7620
Jim McLane - China	1702 Fairwind Houston, TX 77062	488-0312	
Mallik Putcha - India	IBM/6606	282-7244	
<i>Scholarship</i>			
Shirley Brandt	Grumman	929-7183	
<i>Total Quality/Vision</i>			
MDR - William Geissler	LESC/C87	333-6863	333-6908
EPD -			
SCW - Bob Savely	JSC/PT41	483-8105	483-5200

OFFICERS:

	<u>Address</u>	<u>Phone</u>	<u>Fax</u>
<i>Chairman</i>			
Steve Zobel	MDC-1/215	283-1023	283-1855
<i>Chairman-Elect</i>			
Shirley Brandt	Grumman	929-7183	929-7333
<i>Vice-Chairman, Operations</i>			
Audrey L. Schwartz	JSC/IA121	244-8111	244-8589
<i>Vice-Chairman, Technical</i>			
Richard P. Bennett	MDC-5/2196	244-4532	244-4037
<i>Secretary</i>			
Tek Shrini	U08C	282-6643	282-4277
<i>Treasurer</i>			
Paul Judas	MDC-1/601DE	283-1212	283-1855

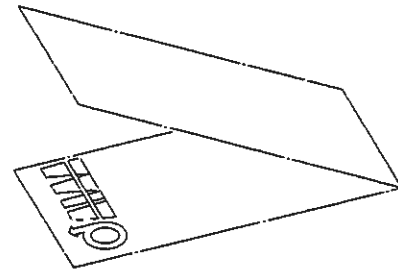
Wallet Reference Card 1992-93 (revised)

Many officers' addresses and phone numbers have changed recently. This wallet card replaces the card published in *Horizons* last fall.

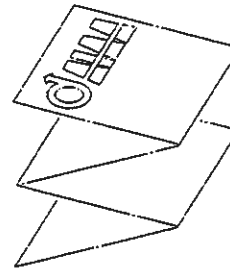
Assembly Instructions:

1. Cut along line. (Neatness counts.)

2. Fold in half with the AIAA logo on the inside.



3. Fold in quarters, putting the logo and officers (Chairman, etc.) on the outside.



4. Keep for reference.

OPERATIONS COMMITTEES:

	<u>Address</u>	<u>Phone</u>	<u>Fax</u>
Communications/Publicity			
Ava Lunsford	Bendix/B80A	283-7312	
Educational/Professional Development			
Dr. Clayton Shadeck	GE	488-9005	488-1092
Honors & Awards			
Al Richmond	HM77	280-7777	480-2456
Membership			
Jim Visentine	JSC/ES5	483-8923	483-2162
Programs & Events			
Chair: Dr. M. M. Miller	LESC/C24	333-6301	333-7724
Admin: Sonya Yoder	LESC/C24	333-6316	333-7724
Public Policy			
(vacant)			
Publications			
Horizons Editor:	1911 Pepper Hill	480-2086	
Lou Livingston	Houston, TX 77058		
Printing:			
Chris Burmeister	LESC/C87	333-6866	
Mailing:			
Dinner Flyers:			
William Geissler	LESC/C87	333-6863	333-6908
Student Activities/Young Members			
Mike Begley	LESC/C87	333-6996	

TECHNICAL COMMITTEES:

	<u>Address</u>	<u>Phone</u>	<u>Fax</u>
Automation & Robotics			
Dr. Zafar Taqvi	LESC/C80	333-6544	333-7620
Communications & Tracking			
Dr. Kumar Krishen	JSC/AA4	283-5875	
Computer & Software Systems			
Cora Carmody	PRC	282-6580	
Ground Test & Simulation			
Dr. Sivaram Arepalli	LESC/C61	483-5910	
Guidance, Navigation & Flight Control			
David Clark	MDC/B2MB	486-6468	283-4020
History/Heritage			
Joey Kuhlman	JSC/BY4/HEI	483-6706	483-2726
Human Support			
Dr. Hatice Cullingford	JSC/XE	283-8229	283-5818
In-Space Imaging & Observations			
Dr. Kamlesh Lulla	JSC/SN15	483-5159	483-2911
Life Science & Space Processing			
Bill Agosto	P.O.Box 590004 Houston, TX 77259	486-9343 (Kinko's)	480-7357
Management			
Dr. John Hunsucker	Univ. of Houston Houston, TX 77204-4812	749-2545	749-2316
Materials, Structures & Dynamics			
Don Probe	LESC/B14	333-6278	333-6278
Space Operations			
Tony Marino	MDCL/2143	244-4406	244-4240
Space Systems			
Harry Johnsom	Grumman	929-7143	929-7998
Thermal Physics			
Joe Chambliss	LESC/C70	333-6713	333-7620